Course guide
220084 - EG1 - Graphic Expression I

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 717 - DEGD - Department of Engineering Graphics and Design.
Degree: BACHELOR'S DEGREE IN INDUSTRIAL TECHNOLOGY ENGINEERING (Syllabus 2010). (Compulsory subject).
Academic year: 2022 ECTS Credits: 6.0 Languages: Catalan, Spanish

LECTURER
Coordinating lecturer: Hernandez Abad, Francisco
Others: FRANCISCO HERNÁNDEZ, JOSE ANTONIO MARÍÑO, ORIOL PARDO, ANTONI GARCIA, MARIA QUILLES, SERGIO VAZQUEZ

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
1. A capacity for spatial vision and an understanding of graphic representation techniques, using the traditional methods of metric and descriptive geometry and computer-aided design applications

TEACHING METHODOLOGY

The subject organizes in:
- Presencials sessions in theory classrooms or CAD, with big group, where the theoretical contents are imparted and are made exercises related, making use of blackboard and projection of multimedia material.
- Presencials sessions in classrooms of CAD with small groups, where practices of application of the explained concepts are carried out to theory. Every week a different practice is worked (activities 1 to 7). They have to give at the end of class in digital file and/or sketch and they have to be completed during the week and give them in paper during the following session.
- A project or work related with all contents.
- Autonomous work of study and realization of exercises and weekly practices.

The necessary documentation to do the subject will put in the digital campus ATENEA at the disposal of the students. The following categories will be established: theory (notes and summary files), practices (headline of each practice), work (guidelines final work), exercises (heading and solutions, so that the student can study out of the schedule of class) and former examinations of course.

LEARNING OBJECTIVES OF THE SUBJECT

- To promote the vision and spatial intelligence.
- To know the more usual techniques of graphic representation in the engineering.
- To provide the students the capacity to manipulate and to describe spatial forms through a flat support.
- Enable student to be able to interpret and to conceive the real space of three dimensions.
- To determine in shape and dimensions any piece or real mechanism.
STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours large group</td>
<td>32.0</td>
<td>21.33</td>
</tr>
<tr>
<td>Self study</td>
<td>90.0</td>
<td>60.00</td>
</tr>
<tr>
<td>Hours small group</td>
<td>28.0</td>
<td>18.67</td>
</tr>
</tbody>
</table>

Total learning time: 150 h

CONTENTS

3. Applied descriptive geometry and spatial

Description:

Related activities:
3,4,5,6,7,8,9,10,11

Full-or-part-time: 78h
Theory classes: 23h
Laboratory classes: 8h
Self study : 47h

2. Advanced plane geometry and its extension to space

Description:

Related activities:
2,7,8,9,10,11

Full-or-part-time: 15h
Theory classes: 3h
Laboratory classes: 3h
Self study : 9h

1. Fundamentals of Computer Aided Design

Description:

Related activities:
1,2,3,4,5,6,7,8

Full-or-part-time: 13h
Laboratory classes: 4h
Self study : 9h
4. Introduction to industrial standards

Description:

Related activities:
4,5,7,8,9,10,11

Full-or-part-time: 44h
Theory classes: 6h
Laboratory classes: 13h
Self study: 25h

GRADING SYSTEM

The final qualification is the sum of the following final qualifications:
Nf = 0.2 Nep* + 0.25 Np + 0.2 Nt + 0.35 Nef

Nf: Final qualification
Nep*: Partial examination mark (activity 9)
Nef: Final examination mark (activity 10)
Np: Practise mark (activities 1 to 7)
Nt: Final project qualification (activity 8)

* Although not mandatory, it is planned to recover the grade of the partial when it is less than 5 in the final exam. If the final exam grade is greater than or equal to 5 and the partial exam grade is less than 5, the final grade is:

Nf = 0.2 \times 5 + 0.25 Np + 0.2 Nt + 0.35 Nef

EXAMINATION RULES.

· The weekly activities in CAD classrooms (activities 1 to 7) are compulsory. To pass the course a maximum of 2 faults are allowed.
· All activities can be done with help of files.

BIBLIOGRAPHY

Basic:

Complementary:

**RESOURCES**

**Hyperlink:**
- http://www.tododibujo.com/