Course guide
320154 - DPBE - Practical Design of Goods and Equipment

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 DESIGN AND PRODUCT DEVELOPMENT ENGINEERING (Syllabus 2010). (Optional subject).
Academic year: 2022 ECTS Credits: 6.0 Languages: Catalan

LECTURER

Coordinating lecturer: Francisco Bermúdez Rodríguez
Others: Tomeu Ventayol Femenías

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
1. DES: Capability to interface design
2. DES: Ability to identify the language of shapes, their values and their relations with the cultural setting.
3. DES: Knowledge of basic animation and 3D simulation.
4. DES: Knowledge of anthropometry.
5. DES: Knowledge of the design methodology
6. DES: Knowledge of design tools for their use in design projects and product redesign.
7. DES: Advanced knowledge in 3D modeling.
8. DES: Knowledge of ergonomic needs.
9. DES: Knowledge of the types of design and products, and their presentation.

Transversal:
10. 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.
11. 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.
12. 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.
TEACHING METHODOLOGY

- Face-to-face sessions of contents.
- Face-to-face practical sessions.
- Self study study and performance of exercises.

In the sessions of exhibition of the contents the professor will introduce the theoretical bases of the Subject matter, concepts, methods and results illustrating them with convenient examples to facilitate them your understanding.

In the practical work sessions the teacher will guide students in product analysis and the resolution of Problems applying theoretical techniques, concepts and results. In a second phase, students will work in the project guided by the teacher.

The students, independently, will have to study to assimilate the concepts, solve the exercises proposed and develop the project.

- The subject includes workshop developments in the form of directed activities

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours small group</td>
<td>30,0</td>
<td>20.00</td>
</tr>
<tr>
<td>Self study</td>
<td>90,0</td>
<td>60.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>30,0</td>
<td>20.00</td>
</tr>
</tbody>
</table>

Total learning time: 150 h

CONTENTS

(ENG) TEMA 1: Gestió i planificació de projectes

Full-or-part-time: 10h
Laboratory classes: 4h
Self study : 6h

(ENG) TEMA 2: Disseny de subsistemes

Full-or-part-time: 80h
Laboratory classes: 32h
Self study : 48h

(ENG) TEMA 3: Prototips

Full-or-part-time: 36h
Laboratory classes: 12h
Self study : 24h
**ACTIVITIES**

**(ENG) TEMA 4: Documentació**

**Full-or-part-time:** 22h  
Laboratory classes: 12h  
Self study: 10h

**ACTIVITIES**

**(ENG) PLANIFICACIÓ DE PROJECTES**

**Full-or-part-time:** 12h  
Laboratory classes: 4h  
Self study: 8h

**ACTIVITIES**

**(ENG) DISSENY DE SUBSISTEMES**

**Full-or-part-time:** 80h  
Laboratory classes: 32h  
Self study: 48h

**ACTIVITIES**

**(ENG) GENERACIÓ DE PROTOTIPS**

**Full-or-part-time:** 36h  
Laboratory classes: 12h  
Self study: 24h

**GRADING SYSTEM**

A continuous assessment model will be applied with the basic purpose of pondering both self-employment and teamwork from students.

The evaluation of the acquisition of knowledge, skills and abilities will be carried out from scheduled deliveries, according to the following criteria:

- 25% Delivery activity 1
- 25% Delivery activity 2
- 25% Delivery activity 3
- 15% Self-employed work
- 10% Attendance
BIBLIOGRAPHY

Basic:

Complementary:

RESOURCES

Other resources:
Material of the subject at the virtual campus UPC.