

## 25875 - Design Workshop II: Design Process and Methods

### Syllabus Information

**Academic year:** 2024/25

**Subject:** 25875 - Design Workshop II: Design Process and Methods

**Faculty / School:** 110 - Escuela de Ingeniería y Arquitectura

**Degree:** 330 - Complementos de formación Máster/Doctorado  
558 - Bachelor's Degree in Industrial Design and Product Development Engineering

**ECTS:** 6.0

**Year:** 558 - Bachelor's Degree in Industrial Design and Product Development Engineering: 2

330 - Complementos de formación Máster/Doctorado: XX

**Semester:** First semester

**Subject type:** 330 - ENG/Complementos de Formación

558 - Compulsory

**Module:**

### 1. General information

The objective of the subject is to get the student to start working in product development, putting into practice some methodological bases that, little by little, will be enriched throughout the degree, and acquiring work habits and behaviors that will be useful from this moment on in a continuous way.

More specifically, it is intended that in this subject students will be able to develop conceptually adequate and formally well-focused product approaches, regardless of the fact that its technical development may not be complete or even debatable, an ability that will be acquired in later courses, within a conscious and controlled methodological process.

### 2. Learning results

1. Ability to organize and plan. Ability to carry out a generic approach to a design process, structuring it in phases and applying a methodology.
2. Ability to select the design strategy. Ability to carry out a redesign and/or product design proposals.
3. Information management skills. Ability to use analysis tools, obtaining conclusions oriented to develop product proposals with improvements on the analysis, proposing solutions to the problems detected, developing at functional and formal level.
4. Ability to define and detail proposals.
5. Ability to present a design project. Ability to select the most optimal representation, graphically and/or by means of models and prototypes.

### 3. Syllabus

The program of the subject consists of the following contents

1. Design methods. Historical review and evolution. Current methods.
2. Product design process.
3. Phases and structure of the design process.
4. Design brief. EDP product design specifications.
5. Product analysis. Analysis of the product context, the market and the user.
6. Structural analysis, A. functional, A. formal, Form-function relationship, A. of use/user/environment.

The case studies are divided into six blocks:

1. Identification of the problem
2. Problem definition
3. User needs
4. Exploration
5. Prototyping
6. Testing

### 4. Academic activities

Lectures: 12h

Theoretical sessions in which the contents of the subject will be explained.

**Types of case analysis:** 18 h

Sessions to solve practical cases presented by the teacher.

**Practical sessions:** 30 h

Sessions in which project tools will be applied to the development of module and subject projects.

**Study and personal work:** 85 h

Theoretical study as well as practical work.

**Assessment tests.** 5 h

Review and presentation of projects.

## 5. Assessment system

The subject will be evaluated as follows:

- 75% Practical Work (35% module project, 40% subject project TD II)
- 25% Examination. It will combine different issues of the syllabus.

It is necessary to pass both parts of the subject, theory and practice (all assignments).

Global assessment for those students who decide to opt for this second system. In this case it will consist of the completion of an equivalent work (75%), requested to the teacher responsible at the beginning of the term, and the completion of the exam (25%) in the official call. Each part must be approved separately.

## 6. Sustainable Development Goals

12 - Responsible Production and Consumption