Universidad Zaragoza

Academic Year/course: 2024/25

25871 - Design Workshop I: Foundations and Product Communication

Syllabus Information

Academic year: 2024/25
Subject: 25871 - Design Workshop I: Foundations and Product Communication
Faculty / School: 110 - Escuela de Ingeniería y Arquitectura
Degree: 558 - Bachelor's Degree in Industrial Design and Product Development Engineering
ECTS: 6.0
Year: 1
Semester: Second semester
Subject type: Compulsory
Module:

1. General information

The subject introduces students to the design methods necessary to plan and execute the ideation process of a competitive product, defining the necessary aspects for its manufacture.

Its main objective is to achieve a methodological basis that will allow the acquisition of adequate work habits throughout the degree. The basic terminology, work strategies and essential concepts of the design activity are proposed for this purpose. In addition, the subject specifically shows the importance of adequately developing the product's communicative capacity, showing simple tools that facilitate its control.

2. Learning results

It is expected that in this subject the students will be able to develop adequate product proposals conceptually and formally well focused. They must have a reasonable productive approach, regardless of the fact that it may not be complete or even include debatable aspects, since this capacity will be acquired in subsequent subjects, within a conscious and controlled methodological process. To do this you will need to achieve the following learning results:

1. Ability to analyze an existing product from a global point of view of its design qualities.

2. Ability to propose an innovative product concept, aimed at a user profile and environment of use, and capable of communicating messages appropriate to that profile and environment.

By passing this subject, students will be able to apply some essential aspects of the formal development of a product in the environment of a design project, developing the communicative capacity of that product towards specific users . Will be able to carry out a generic approach to a design process, structuring it in phases and applying a methodology. The student will have assimilated basic knowledge and terminology of industrial design through its application to project development, discussion and presentation. The student will be able to perform, at a basic level, critical product analysis, to obtain conclusions oriented to generate conceptual alternatives and make proposals for their possible industrialization, within the context of a design methodology, and applying the fundamentals acquired in the rest of subjects of the year. Will be able to present at a basic level a design project, selecting the most optimal means ofrepresentation and models.

3. Syllabus

A. Design as a professional activity. Basic terminology.

B. The product as a pragmatic / syntactic / semantic structure.

C. Introduction to the global analysis of aspects related to the product.

D. Formal development of the product as a communication support.

Theoretical contents:

1. what is Design?
2. Design methodologies.
3. The Pragmatic / Syntactic / Semantic relationship.
4. Study of the shape: Work with influence panels.
5. Tools: Representation techniques.
6. Approaches to the product: market, manufacturing, user, usage environment...
7. Basic elements of the form: Point, Line, Plane. Color. Textures...
8. Design as a communication system.
9. The importance of form. Gestalt Laws.
10. Case analysis.

4. Academic activities

The subject consists of 30 hours of theoretical classes, where theoretical knowledge related to methodology, explanation of work techniques, terminology, etc. and 30 hours of practical classes, some of which are of work and others of presentation and evaluation of results, are provided. The moment of greatest dedication coincides with the completion of main project of the subject, around week 10. The following projects are developed in the practical classes:

Exercise	***Week (approx)***
Object analysis.	1 y 2
Creation of resistant structures with simple materials.	3 y 4
Construction of shapes from point, line, volume.	5 y 6
Study of shapes by means of influence panels.	7 y 8
Project design.	9, 10, 11
Object analysis II.	12, 13

5. Assessment system

Different practical exercises are taken into account together with a series of theoretical tests, in a context of continuous evaluation. The result of the practicals represents 80% of the grade of the course (directed work and presentations), while the result of the theoretical tests represents the remaining 20%. HOWEVER, IN ORDER TO BE CONSIDERED AS HAVING PASSED THE SUBJECT, IT IS NECESSARY TO PASS BOTH PARTS INDEPENDENTLY.

Assessment of the theoretical part:

For the evaluation of the theoretical part, at the end of each class and following a continuous evaluation model, a simple theoretical exercise is carried out that will generate the grade cumulatively, as these exercises are satisfactorily completed. Alternatively, on the official exam call date, a theoretical exam will be scheduled, where knowledge of terminology, definitions, and basic design concepts is tested.

Assessment of practical part:

For the assessment of the practical part of the subject, different projects are developed throughout the term, whose content, workload, link to the training objectives and assessment value are provided in class as the work begins. Each statement includes specific evaluation criteria that include aspects such as the depth of the analysis tasks, the ability to develop alternatives or the quality of the documentation provided in the presentation. Alternatively, a single practical work of greater complexity can be developed that will be delivered on the official exam call date, according to the instructions that will be provided in class.

IMPORTANT OBSERVATIONS:

- In case of failing one of the two parts (theory or practice), the grade of the failed part will be recorded in the minutes, but the grade of the passed part (theory or practice) will be kept for the next exam within the same academic year , so that the student will only have to examine the part not passed (theory or practice). However, if does not pass the subject, the student must take it again in another academic year, necessarilyre-examining the entire subject (theory + practice).

- As previously indicated, those students who prefer not to opt for continuous assessment will have to take a theoretical exam similar to the one previously mentioned together with one or more practical projects specifically defined for this assessment modality.

6. Sustainable Development Goals

8 - Decent Work and Economic Growth
12 - Responsible Production and Consumption