Universidad Zaragoza
1542

Year : 2018/19

25877 - Design Workshop III: Creativity

Syllabus Information

Academic Year:	2018/19
Subject:	25877 - Design Workshop III: Creativity
Faculty / School:	110 -
Degree:	558 - Bachelor's Degree in Industrial Design and Product Development Engineering
ECTS:	6.0
Year:	2
Semester:	Second semester
Subject Type:	Compulsory
Module:	---

General information

Aims of the course

The main goal of the degree is to make proficient students dealing with the knowledge management and design skills nedeed for planning and developing the entire manufacturing process and product life.
In this sense, the subject is part of the group that aims the implementation and development of these skills in the most creative aspect, being a basic subject in the practice of industrial design and product development, key to understanding and problem solving and commitment to innovation and product improvement.

Context and importance of this course in the degree

The subject aims to get the student to start working on product development from a very early stages of the design process, implementing techniques and creative methods that will be used throughout the degree, and acquiring habits and behaviors that will work from this time continuously.

More specifially, it is intended that this course students are able to conceptualise products, defining the key elements of a product differentiating factors for innovation through ideas and new solutions. Likewise, the course sets the standards for use creativity in various forms in all stages of the design process.

Recommendations to take this course

The subject belongs to the backbone of the degree and to the group of subjects "Design Workshop", it is a continuation of the contents of the courses "Design Workshop I and II", for this reason it is highly recommended to have overcome these subjects.
Similarly, it is advisable to have a good level of technical drawing and sketching, to improve and increase communication

skills own this subject.

Learning goals

Competences

BASIC COMPETENCES

CB03. Students have the ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include an important reflection on social, scientific or ethical issues.

CB04. Students can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.

GENERAL COMPETENCES

GC05. Capacity to collect, manage, analyze and synthesize information from various sources for the development of design projects and product development. Capacity to use this documentation to obtain conclusions aimed at solving problems and making decisions with initiative, creativity and critical thinking, in order to generate new product concepts, new ideas and solutions.

SPECIFIC COMPETENCES

SC13. Understand the creative process, its stages and relationship with industrial design. Understand and apply divergent and convergent design methods, similar to those found in the creative process and develop the capacity of conceptualization.

Learning goals

The student, for passing this subject, must show the following results:

1. Understand the creative process, its stages and the relationship with the industrial design. Get to know creative techniques and apply methods through the design process.
2. Understand and apply the creative divergent and convergent process, in relation to design methodologies.
3. Get to know how to create new concepts, and apply the ability for abstraction and split problems.
4. Get to know how to use techniques for detection, analysis and solving problems. Solving simple design problems.
5. Explore, reflect and create new ideas and subsequent selection. Ability to use techniques for idea generation and selection, individually or collectively.

Importance of learning goals

The course is related to the group of subjects "Design Workshop", all these subjects are methodological and experimental so that learning is based on "project based learning", practice is a very important factor in the learning process. It also provides expertise to other cross and electives subjetcs.

Assessment (1st and 2nd call)

Assessment tasks (description of tasks, marking system and assessment criteria)

The subject is assesed in two parts, theoretical and practical, it is necessary to pass both parts.

The division into two parts corresponding to the following percentages:

- 25% Exam and / or written work.
- 75% Assignments and projects (45% exercises, 30% module project)

Note: Following the rules of the University of Zaragoza in this regard, in the subjects with systems of continuous or gradual assessment, an overall test assessment will also be scheduled for students who decide to opt for this second system.

Methodology, learning tasks, syllabus and resources

Methodological overview

In the course some theoretical subjects which will serve for learning definitions, the creative process, tecniques and for reviewing cases and examples with presentations will be developed. However, the bulk of the course will consist of assignments in the classroom and on behalf of the student, tutored sessions monitoring and evaluation of project achievements and partial and general objectives of attainment.
Practical classes will consist of several simple exercises for individual work and project for collective work, the issues may be related to work of other subjects that are developed in the same quarter so that the share of research and problem solving is applicable to other exercises and student projects.
The assessment will be continuous and will be based on meeting the objectives set out in proposed projects and exercises, through the assessment of different sections within the exercise or project itself.

Learning tasks

The lectures and master classes addressed theoretical issues and cases that are discussed and analyzed, debates are made.
The practical classes are developed through easy exercises for experimental and conceptual single work: The project is collective work and methodology seen in the theoretical part is applied.
6 ECTS: 150 hours / student distributed as Follows:
30 h. large group sessions: theory and cases (15 sessions x 2 hours) Type 1
30 h. Practice session (15 sessions x 2 hours) Type 2
15 h. theoretical study
70 h. autonomous work
5 h. exams and oral presentation of projects

Syllabus

- Concept Generation
- Creativity and Creative thinking
- Creative process
- Creative methods
- Problem analysis. Problem solving
- Creative techniques
- Visual Thinking

Course planning and calendar

Week	Master class / cases	Practical classes
1	Creativity and creative thinking. Definition	Individual practical exercise
2	The creative process	Individual practical exercise

3	Creative methods. Characterization and Classification.	Individual practical exercise
4	Problem analysis. Problem solving	Project module.
5	Techniques I. Techniques Problem analysis.	Project module.
6	Techniques II. Techniques individual creativity.	Project module.
7	Techniques II. Techniques individual creativity.	Project module.
8	Techniques III. Group creativity techniques.	Project module.
9	Techniques III. Group creativity techniques.	Project module.
10	Techniques IV. Assessment techniques ideas.	Work group.
11	Case Studies 1	Work group.
12	Case Studies 2	Work group.
13	Case Studies 3	Work group.
14	Case Studies 4	Work group.
15	Case Studies 5	Work group.

The subject share contents with other subjects in 2nd year 2nd term module, so it is necessary to make a good coordination of both activities / work as dates, each date or key activity is defined in the statement of the common project module and the schedule of sessions and presentation of works section.
Each subject/course timetables, start and ending dates, teaching schedules and office hours of teachers are published and can be found on EINA website:
https://eina.unizar.es/

Bibliography and recommended resources