

## 62941 - Creativity management in professional environments

### Información del Plan Docente

<b>Academic Year</b>	2016/17
<b>Academic center</b>	110 - Escuela de Ingeniería y Arquitectura
<b>Degree</b>	562 - Master's in Product Development Engineering
<b>ECTS</b>	6.0
<b>Course</b>	1
<b>Period</b>	First semester
<b>Subject Type</b>	Compulsory
<b>Module</b>	---

### 1. Basic info

#### 1.1. Recommendations to take this course

Knowing the creative thought process and creative methods, individual and group problem analysis techniques, idea generation and idea selection techniques is needed.  
Having a good predisposition to the development of creative processes, flexibility and open-mindedness as well as good communication skills own of this subject is an advantage.

#### 1.2. Activities and key dates for the course

### 2. Initiation

#### 2.1. Learning outcomes that define the subject

The student, for passing this subject , should demonstrate the following results ...

- Can be creative and lead creative groups. I s able to define team membres profiles to create a multidisciplinary group.
- Knows external sources from which to extract resources to apply in projects.
- I s able to stimulate a creative group and apply specific creative techniques in each project phase.
- I s able to define the traits and characteristics that generate innovative product concepts .
- I s able to communicate ideas to other designers

#### 2.2. Introduction

##### **Brief presentation of the subject**

Designers must be able to manage their creative capabilities and resources , their creative environment and other's capabilities in the design process . In the professional and organizational environment must overcome barriers and constraints to solve problems. T he difference between creative profiles of the members of the organization or company require the existence of a leader that encourages creativity and manage resources.  
Designers should be able to create a suitable climate and to manage strategies and group creative methods. Designers

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should be able to relate to its external environment looking for collaboration and external involvement . Management and direction of creativity must provide elements of differentiation that create new product and service concepts .

### 3.Context and competences

#### 3.1.Goals

#### 3.2.Context and meaning of the subject in the degree

The course aims to get the student , through management and leadership in creativity individually or group, can make conceptual proposals for product innovation , which are related and reinforce the needs of other contents of the master. Creative process brings diversity to develop solutions in the field of product design and belongs to the design process integrated into their methodologies .

More specifically , it is intended that the student knows and works in Co-Creation and Co-design , Open Innovation , Collective Intelligence or the Creative Clusters. All this applied to the conceptual design in search of the essence of products and services, creating opportunities for differentiation .

#### 3.3.Competences

Passing the course , students will be more competent to ...

- Lead creative teams on design projects and capable in generating new product concepts integrating differentiating product features.
- Generate ideas in collaborative environments leveraging resources from other members in a working group .
- Interact with experts from the outside environment by integrating external inputs .

#### 3.4.Importance of learning outcomes

The subject is compulsory, so it is considered that training in this area is important for the professional development of the student.

### 4.Evaluation

**The student must demonstrate that it has achieved the intended learning outcomes through the following evaluation activities**

1: The course consists of two parts with different percentage:

- 70% practical work (30% individual exercises and 40% group project).
- 30% Theoretical evaluation through written test (examination or individual written work).

Students must pass both parts of the course, theory and practice.

2: A assessment will be conduct in a continuous manner and by the teachers group of the subject

All work, exercises or projects are assessed with rubrics designed specifically. These rubrics are available for students.

3: The subject arises in three parts, the case analysis, exercises and the development of a project.

- Case analysis part of the theoretical evaluation. The student must find and choose a case, analyze it, discuss it and present a written work with conclusions.

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- The exercises are developed in practical lessons and are completed with personal or group work of students.
- The project integrates the work done in practical lessons, which ends in submitting a design concept.

*Following the rules of the University of Zaragoza in this regard, in the subjects they have systems continuously or gradual assessment, also it schedules a test overall assessment for students who decide to opt for this second system.*

### 5. Activities and resources

#### 5.1. General methodological presentation

**The learning process that is designed for this subject is based on the following:**

Each block of the subject has an understanding based on a theoretical content, explained in a master class for the whole group. These blocks are then developed in a practical lesson by cases and discussing them. Finally they are applied in the different exercises and/or a common project. This practical learning and experimentation can clearly set the theoretical contents. Some cases and techniques are shown and experienced in the master class or developed specifically in a practical lesson.

Learning is based on reflection and discussion of specific cases that are generic enough to apply to other situations, solving simple exercises group creativity arises.

#### 5.2. Learning activities

The master class serves to theoretically know and explain the five blocks needed to implement concepts in practical classes and project work. The master class is a presentation of content by a teacher including demonstrations. In addition, cases technique are used, in which students analyze professional situations presented by the teacher in order to make an experiential conceptualization and search for effective solutions.

The practical classes are based on experiences or developed exercises in the classroom. These practical classes will assist the students to explore and work a practical problem by applying interdisciplinary knowledge in a project form. Some of the work will be theoretical and the student will prepare seminars, lectures, research papers, reports, etc. to expose or deliver in theoretical classes or as a written work.

Finally, the evaluation is done by a set of written, oral tests, practices, projects, jobs, etc. used in the assessment of student progress.

#### 5.3. Program

**The program that the student is offered to help you achieve the expected results includes the following activities**

...

The contents of the course are divided into 5 blocks:

- Open Innovation : Collective intelligence, open to change organizations, contribution of the external environment.
- Creative Cluster : Interaction of industrial sectors for innovation.
- Co-creation and co-design : Creativity in interdisciplinary groups, contribution by multidisciplinary profiles.
- Creative leadership : Facilitators of creativity, Design Coaching
- Conceptual design: Essence of products / services, opportunity for differentiation

#### 5.4. Planning and scheduling

**Schedule sessions and work presentation**

This is a 6 ECTS subject, equivalent to 150 hours of student work, allocated as follows:

- 10 hours. Master / theoretical class
- 10 hours. Case discussion.
- 36 hours. Practical lessons
- 4 hours. Special lessons (visiting or others)

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- 70 hours . Personal work or practical research
- 4 hours . Personalized teacher-student lessons
- 10 hours . Personal study of theory
- 6 hours . Evaluation tests

### 5.5. Bibliography and recommended resources

- Dilts, R. B. (1999; 2005). *Liderazgo creativo :Para forjar un mundo al que las personas deseen pertenecer* (3a ed.). Argentina etc.: Urano.
- Sloane, P., (2006). *The leader's guide to lateral thinking skills unlocking the innovation & creativity in yourself & your team* . London; Sterling, VA: Kogan Page Ltd.
- Turkka Kalervo Keinonen, Roope Takala. *Product Concept Design: A Review of the Conceptual Design of Products in Industry* . Springer Science & Business Media, 2010 - 204 páginas