

## Design Thinking

Academic Year: ( 2023 / 2024 )

Review date: 02-06-2023

Department assigned to the subject: Transversal matters

Coordinating teacher: TINEO ALVAREZ, ANGELES

Type: Compulsory ECTS Credits : 3.0

Year : 3 Semester :

## REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

None

## OBJECTIVES

- To understand the challenge or problem from the user or customer point of view that allows achieving higher added value.
- To work in a team, valuing diversity in the creative resolution of the challenge, understanding the richness that a diverse team brings to solve the challenge.
- Finding the insights and opportunities that comes with a deep understanding of the challenge that also open up the field to innovative solutions.
- Being aware of the potential of creativity that we have inside and being able to put into practice ideation techniques focused on disruption.
- Learning to design a solution by prototyping and validating satisfactory the hypotheses for its success.
- Learning and reviewing of the concept of failure as a tool for improvement and search for the solutions of the proposed challenges.
- Be able to presentation of the solution to the jury so that the greatest impact is achieved.
- Discovering fun as a powerful innovation tool allowing a novel and creative approach to any solution.
- To be able to identify what challenges are likely to be addressed through Design Thinking and have the tools to take the path towards its solution.

## DESCRIPTION OF CONTENTS: PROGRAMME

1. What is Design Thinking, its origins and current situation.
2. Formulation of the challenge and the work to be done from the user's point of view: How to formulate a challenge and how to reformulate it using the telescoping technique. Elaboration of the value network. Definition of the project through the innovation brief.
3. Empathising and looking for the need: What is the job to be done. Fundamental motivations of the users. Techniques to empathise and find out the user's ultimate need. Map of extreme users. Making a research plan. How to conduct an interview. Technique of analogous situations. Observation techniques. Immersion techniques.
4. Formulation of revelations and search for areas of opportunity: Empathy maps. Motivational map. Formulation of revelations or insights. Formulation of areas of opportunity.
5. Ideation: How to break the opportunity into foci. How to do an ideation session. Idea filtering.
6. Prototyping and testing: What is a learning loop. Cognitive risk mitigation. Innovation drivers. Hypothesis map and experiment board. Prototyping.
7. How to sell the solution: Elevator pitch. Presentation of the proposed solution to a jury.

## LEARNING ACTIVITIES AND METHODOLOGY

Teaching hours are distributed in accordance to the following activities:

- ¿ Theoretical-practical teaching; Active, dynamic and participatory learning. During the classes practical exercises will be carried out in which the students will put into practice the explained techniques. Real cases of projects will be presented.
- ¿ Students will establish themselves in teams that must develop a project during the semester with presentations to the intermediate steps class and a final presentation before the jury.
- ¿ Written and oral assignments; student exhibitions. Students must comment on business cases (projects carried out through Design Thinking) including the public exhibition in the classroom.
- ¿ A self-learning session will be carried out using the Insights methodology to know the team

profiles.

## ASSESSMENT SYSTEM

Final exam in the official exam session: 0 points.

Continuous assessment: 10 points of the overall grade.

- Attendance at 85% of the classes is compulsory in order to pass the course (i.e. 12 of the 14 classes).
- Active participation in the classes.
- Completion of exercises and practical activities in class and through Aula Global.
- Two written assessment tests: one in the 7th class, a short development test that will deal with the contents worked on in the previous classes; another in the 14th class: a development test on the whole of the syllabus taught in which students must summarise the contents dealt with and draw conclusions on the practical applications of the same at a professional level. They must also write a conclusion and personal self-assessment on the level of development they consider they have reached in the skill to which the subject refers.
- There may be other assessment tests that will be indicated in the weekly planning.

Percentage weight of the Final Exam: 0

Percentage weight of the rest of the evaluation: 10

Please note that, in accordance with current regulations, each enrolment in cross-disciplinary subjects, as in this case, will involve a single call and, in those cases in which the continuous assessment process includes a test, this must be taken during the timetable and in the classroom reserved for classes, as these cross-disciplinary subjects do not have a date reserved in the official exam calendars.

<b>% end-of-term-examination:</b>	0
<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	100

## BASIC BIBLIOGRAPHY

- Kilian Langenfeld Design Thinking para principiantes: La innovación como factor para el éxito empresarial, Independiente, 2019
- M Lewrick The Design Thinking Toolbox ¿ A Guide to Mastering the Most Popular and Valuable Innovation Methods , John Wiley & Sons Inc, 2020