

Course Unit	-	Field of study	-
	Postgraduate Course in Circular and Sustainable Water Design: Health and Wellness	School	School of Hospitality and Wellbeing
Academic Year	2023/2024	Year of study	1
Type	Semestral	Semester	1
		Level	
		ECTS credits	5.0
		Code	5067-778-1101-00-23
Workload (hours)	135	Contact hours	T - - TP 40 PL - TC - S - E - OT - O -

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Alcina Maria Almeida Rodrigues Nunes

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Contextualise the concept of Design Thinking (DT), Creativity and Innovation, identifying its main characteristics
2. Present creative thinking skills, becoming aware of the mechanisms of a systematised innovation process
3. Differentiate DT models
4. Understand and critically reflect on the role of DT in organisations, identifying good practices for using it for innovation and for sustainability
5. Carry out a complete DT process, applied to problems and/or opportunities identified, running the various DT techniques
6. Competently use different tools from different DT kits
7. Participate in collaborative and multidisciplinary dynamics typical of DT, managing time and task distribution within group work
8. Convey and defend ideas and solutions using oral and visual communication in different formats

Prerequisites

Before the course unit the learner is expected to be able to:
Not applicable

Course contents

Introduction to the Design Thinking concept. The Design Thinking process. The emergence of a project. Empathy. Generation of Ideas. Prototyping and testing. Exhibition and presentation. Pitch Day.

Course contents (extended version)

1. Introduction to the Design Thinking concept
 - The DT concept and the fundamental principles
 - The relationship between DT, Creativity and Innovation
 - The mechanisms of creative thinking
2. The Design Thinking process
 - Comparison of models phases
 - Case Studies of DT application in a business context
3. The emergence of a project
 - Contextualisation of investigation and inspiration techniques
 - Conducting Opportunity Mind Maps and an Intent Statement
4. Empathy
 - Use of techniques to develop empathy with consumers
 - Formulation of conclusions
5. Generation of Ideas
 - Use of idea generating tools
 - Use of idea selection tools
6. Prototyping and testing
 - Contextualisation of techniques for elaborating ideas/concepts
 - Use of prototyping and validation techniques
7. Exhibition and presentation
 - Contextualisation of verbal and visual communication techniques
 - Tools for presenting solutions and getting feedback
8. Pitch Day
 - Presentation of projects
 - Feedback

Recommended reading

1. Alves dos Santos, J., & Moreira J. (2022). Human-centred vs Planet-centred. In Tschimmel, K. (Coord.), Creativity and Innovation Affairs (pp. 52-53). Edição Mindshake.
2. Brown, T. (2009). Change by Design. How Design Thinking transforms organisations and inspires innovation. Harper Collins Publishers.
3. Tschimmel, K. (2022). Creativity, Design and Design Thinking-A Human-Centred ménage à trois for Innovation. In Raposo D., Neves J., Silva J. (eds.). Perspectives on Design II, vol 16. Springer, Cham.
4. Tschimmel, K. (2022). Design vs Design Thinking. In Creativity and Innovation Affairs (pp. 28-29). Edição Mindshake.
5. Tschimmel, K. (2018). Toolkit Evolution 6. An E-handbook for Practical Design Thinking for Innovation. Ed. Mindshake.

Teaching and learning methods

The methodology will include didactic actions of diverse nature that include research, active readings, process analysis, elaboration of learning sheets, experimentation, practical exercises, and collective debates. Classroom activities range from theoretical presentation of concepts (expository method), exploration and application of heuristic tools in group work (active and experimental method)

Assessment methods

- Alternative 1 - (Regular, Student Worker) (Final, Supplementary, Special)
 - Work Discussion - 15% (In this point counts assiduity, punctuality and quality participation in exercises and discussions)
 - Practical Work - 30% (Group work: critical and creative presentation of a Case Study on the application of DT)
 - Practical Work - 30% (Group work: dossier for monitoring the classes and exercises developed and their analysis)
 - Development Topics - 25% (Individual work: Personal reflection on the learnings carried out at the Curricular Unit)

Language of instruction

Portuguese

Electronic validation

Alcina Maria Almeida Rodrigues Nunes	Maria José Gonçalves Alves
31-10-2023	08-11-2023

This document is valid only if stamped in all pages.