



Universitat de Lleida

DEGREE CURRICULUM **INNOVATION IN ICT**

Coordination: MATEO FORNES, JORDI

Academic year 2023-24

Subject's general information

Subject name	INNOVATION IN ICT			
Code	102385			
Semester	2nd Q(SEMESTER) CONTINUED EVALUATION			
Typology	Degree	Course	Character	Modality
	Bachelor's degree in Digital Interaction and Computing Techniques	2	COMPULSORY	Attendance-based
Course number of credits (ECTS)	6			
Type of activity, credits, and groups	Only examination			
Coordination	MATEO FORNES, JORDI			
Department	COMPUTER ENGINEERING AND DIGITAL DESIGN			
Teaching load distribution between lectures and independent student work	<p>Globally, the subject has 150 hours of work spread over 60 hours (30 hours face-to-face and 30 hours virtual) and 90 hours of individual student work.</p> <p>6 ECTS = 25 * 6 = 150 hours of work</p> <p>20% -> 30 face-to-face hours</p> <p>20% -> 30 virtual hours</p> <p>60% -> 90 hours of autonomous student work</p>			
Important information on data processing	Consult this link for more information.			
Language	Catalan (in Spanish if any student shows difficulties with Catalan). The material of the subject in English.			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
MATEO FORNES, JORDI	jordi.mateo@udl.cat	0	

Learning objectives

- Analyze the context and be able to make innovative proposals.
- Foment the entrepreneurship.
- Integrate the innovation in business strategies.
- To manage innovative projects.
- Acquire knowledge about financing R&D projects.
- Acquire knowledge about users and build empathic models and client archetypes.
- Apply methodologies to generate creative and sustainable innovation.
- Analyze innovative projects and their economic viability.

Competences

Basic:

- **CB2:** That students know how to apply their knowledge to their work or vocation in a professional manner and possess the skills that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study.
- **CB3:** That students have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical issues
- **CB4:** That students can transmit information, ideas, problems and solutions to a specialized and non-specialized public

Transversal:

- **CT2:** Acquire a significant command of a foreign language, especially English.
- **CT3:** Acquire training in the use of new technologies and information and communication technologies.
- **CT4:** Acquire basic knowledge of entrepreneurs and professional environments.
- **CT6:** Apply the gender perspective to the tasks of the professional field.

General:

- **CG5:** Know the basic subject areas and technologies needed to learn and develop new methods and technologies, and those that help to adapt to new situations.
- **CG6:** Know and apply basic economical and human resources concepts, and organization and planning of informatics projects.

Specific:

- **CE6:** Capacity to design, develop, select and evaluate applications and computer systems, ensuring its reliability, security and quality.
- **CE22:** Capacity to apply the acquired knowledge to propose innovative technological solutions in the area of digital interactive applications.

Subject contents

Topic 1: Introduction to innovation

- Concept of innovation
- Cycle of innovation
- Grades of innovation
- Examples of innovation

Topic 2: Design Thinking

- Concept
- Methodologies to make-up ideas
- Application in business sectors
- Examples

Topic 3: Lean Startup

- Concept
- Methodologies
- Examples

Topic 4: Digital transformation

- Concept
- Innovation and digital transformation
- Steps
- Barriers

Topic 5: Risk Management

- Introduction to risk management
- Types of risk
- Tools to measure and manage risk
- Examples

Topic 6: Open Innovation

- The context
- Scenarios and main elements
- Examples

Topic 7: Legal aspects related to innovation

- Trademarks and designs
- Creation and management of patents
- Intellectual property

Topic 8 : Financing innovative projects

- Ecosystems and innovative platforms
- Channels
- Selection of opportunities
- Examples and case studies

Methodology

An active methodology is used where the student is the **protagonist** of their learning (*learning to learn*) and is **responsible** for deciding what final product they want to develop and what knowledge they need to achieve the objectives of each delivery. A **cooperative** methodology is proposed, working in teams of 3 to 4 members to promote interdisciplinarity. Students will **incrementally** develop an innovative idea and complete all the steps to **transform** their **idea** into a **technological startup**. It is always based on the previous knowledge introduced in the theoretical sessions and/or learned in other courses of this degree. The different work rhythms of each group are

respected.

A hybrid methodology is used to encourage healthy and sustainable competition between teams with **CoWorking** sessions. In these sessions, the groups will receive advice from the other groups to improve their projects. This way, competition is focused on winning the final contest (Startapp contest), but they also collaborate to reach the goals in the best possible conditions. This model aims to encourage skills and competencies related to *teamwork, research skills, leadership, critical capacity, etc.* at the same time, the knowledge of the subject is assimilated. The deliveries are **functional**, with constant *feedback* and *suggestions* from the teaching staff and the rest of the teams, allowing **pivoting** actions and **corrections**.

Finally, students will learn how to promote and incorporate **digital transformation** in current business models. Classes will be used to present the theoretical foundations and practice the contents of the subject, group work sessions, presentation sessions, evaluation of the work done, and other activities related to the project's development.

* **This course will not have face-to-face classes because the degree is in extinction.**

Development plan

Week	Theory	Lab	Homework
1	T1	M1	I1
2	T2	M1	I2
3	T3	M2	I3
4	M2	M2	I4
5	M2	M2	I3
6	T4	M2	I4
7	M3	M3	I5
8	First Partial		
9	HOLIDAYS	M3	I6
10	T4	M4	I7
11	T5	M5	I8
12	T6	M5	I9
13	T7	HOLIDAYS	I10
14	T8	M6	I10

Week	Theory	Lab	Homework
15	M6	M6	I10
16	Second Partial		
17			
18			
19	Recovery		

Evaluation

Acr.	Evaluation Activities	Weight	Minimum Mark	Groups	Recoverable
E1	1st partial exam	30%	NO	NO	YES
E2	2nd partial exam	45%	NO	NO	YES
PRA	Assesment	25 %	NO	NO	NO

*** To pass the course, **FINAL MARK** must be *greater than or equal to 5*.

Considerations:

- If you have not passed the subject, you can go to the recovery exam.
- In this case the grade will be calculated as follows: Final grade = 75% * recuperation grade + 25% * PRA
- The recovery exam can only be attended in case of having failed the subject.

Bibliography

- Tim Brown (2008), Design Thinking, Harvard Business Review.
- Lawson, Brian (2006), How Designers Think: The Design Process Demystified.
- Scott Berkun (2010), The Myths of Innovation.
- Jeff Dyer, Jeffrey M. Dyer, Hal B. Gregersen (2011), The Innovator's DNA: Mastering the Five Skills of Disruptive Innovators.
- Design thinkg bootleg. <https://dschool.stanford.edu/resources/design-thinking-bootleg>