1. OVERVIEW

Subject area	Innovation Management
Degree	Bachelor's Degree in Industrial Organisation Engineering
School/Faculty	Faculty of Science, Engineering and Design
Year	Year 2
ECTS	4.5 ECTS
Type	Compulsory
Language(s)	Spanish
Delivery Mode	On campus
Semester	Second

2. INTRODUCTION

Innovation Management is taught in the second year and is part of the business module. It aims to teach students how to boost innovation so that it provides a constant competitive advantage. It also deals with the importance of constantly evolving to adapt to changes in the market and consumer behaviour, as well as how to spot new opportunities and markets.

During the course, we will look at different lines and models of business innovation, the path from closed to open innovation, models for transferring knowledge, constraints, systems and results. Students will acquire technology watch techniques using patents, utility models and copyright.

They will therefore learn how the correct management of new products/services, processes, or marketing and organisation methods is vital in our current economic environment. In their future careers, students will have to deal with relationship problems between business and technology and how these two factors interact with their environment. Students will learn how to integrate innovation strategy and technology as a core part of the corporate business model.

3. SKILLS AND LEARNING OUTCOMES

Basic skills (CB, by the acronym in Spanish):

- ⇨ CB4: Students can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.
- ⇨ CB5: Students have developed the learning skills necessary to undertake further study in a much more independent manner.

Cross-curricular skills (CT, by the acronym in Spanish):

- ⇨ CT01: Ethical values: ability to think and act in line with universal principles based on the value of a person, contributing to their development and involving commitment to certain social values.

- ⇨ CT02 - Independent learning: skills for choosing strategies to search, analyse, evaluate and manage information from different sources, as well as to independently learn and put into practice what has been learnt.
- ⇨ CT03. Teamwork: ability to integrate and collaborate actively with other people, areas and/or organisations to reach common goals.
- ⇨ CT04. Written/spoken communication: ability to communicate and gather information, ideas, opinions and viewpoints to understand and be able to act, spoken through words or gestures or written through words and/or graphic elements.
- ⇨ CT05. Analysis and problem-solving: be able to critically assess information, break down complex situations, identify patterns and consider different alternatives, approaches and perspectives in order to find the best solutions and effective negotiations.
- ⇨ CT06. Adapting to change: be able to accept, consider and integrate different perspectives, adapting your own approach as required by the situation at hand, and to work effectively in ambiguous situations.
- ⇨ CT08. Entrepreneurial spirit: ability to take on and carry out activities that generate new opportunities, foresee problems or lead to improvements.
- ⇨ CT09. Global mindset: be able to show interest in and understand other customs and cultures, be aware of your own biases and work effectively as part of a global community.

Specific skills (CE, by the acronym in Spanish):

- ⇨ CE16 - Ability to apply innovative strategies to projects and industrial activity by applying knowledge of the latest technology, new business models and knowledge management.

Learning outcomes (RA, by the acronym in Spanish):

After passing the course the student will be able to:

- ⇨ RA1 - Establish a business plan and project viability assessment for business entrepreneurship.
- ⇨ RA2 - Analyse the implications that technological innovation can have on different administrations.

The following table shows how the skills developed in the subject area match up with the intended learning outcomes:

Skills	Learning outcomes (RA, by the acronym in Spanish)
CB4, CB5, CT1, CT2, CT3, CT4, CT5, CT8, CT9, CE16	RA1, RA2

4. CONTENTS

- Section 1. Innovation management. Technological innovation and business models.
- Section 2. Tools for innovation: Design Thinking.
- Section 3. Knowledge creation and management.

- Section 4. Open innovation and innovation networks.
- Section 5. Technology and innovation watch.

5. TEACHING/LEARNING METHODS

The types of teaching/learning methods are as follows:

On campus:

⇨ Master lectures
⇨ Case study
⇨ Collaborative learning
⇨ Problem-based learning
⇨ Project-based learning
⇨ Learning based on laboratory work (laboratory, workshop and simulation environments)
⇨ Gamification
⇨ Field work (field trips, work experience)

6. LEARNING ACTIVITIES

The types of learning activities, plus the amount of time spent on each activity, are as follows:

On campus:

Learning activity	Number of hours
Master lectures	25
Problem-solving and case studies	20
Practical seminars and debates/discussions	10
Field work	7.5
Learning contract (definition of interests, needs and objectives)	10
Autonomous learning	30
Tutorials	10
TOTAL	112.5

7. ASSESSMENT

The assessment systems, plus their weighting in the final grade for the subject area, are as follows:

On campus:

Assessment system	Specification	Weighting
On Campus tests to evaluate objectives of theory/practical learning (exam-type objective	Test-type exam (activity 4)	35%

tests, written compositions, oral presentations, case studies/problem solving, debates, simulation tests)		
On-site laboratory tests (activity reports, oral presentations)	Activity 3 (project and oral presentation)	15%
Off-site tests to assess theory/practical learning (case studies/problem-solving)	Activities 1 and 2	30%
Attitude assessment tests (attitude assessment rubrics, class participation)	Class participation	10%
Self- and co-assessment (learning contract, learning outcomes)	Co-assessment	10%
TOTAL		100%

On the Virtual Campus, when you open the subject area, you can see all the details of your assessment activities and the deadlines and assessment procedures for each activity.

8. BIBLIOGRAPHY

The reference publication to accompany this subject area is:

Basic:

- Phimister, A. & Torruella (2021). El libro de la innovación. Ed. Gen Innovación. Libros de Cabecera.
- Keeley, L. et alt. (2013). Ten types of innovation: The discipline of building breakthroughs. Published by Jhon Wiley & Sons.
- Osterwalder, A. et alt (2020). La empresa invencible. Editorial Jhon Wiley & Sons.

Complementary:

- Planellas, M. (2021). El libro rojo de la innovación. Ed Penguin Ramdom House Grupo Editorial SAU.
- Tidd, J. & Bessant, J. (2013). Managing Innovation: Integrating Technological, Market and Organizational Change. 5ed. Published by Jhon Wiley & Sons.