

**COURSE DATA****Data Subject**

Code	36522
Name	Technology and Innovation Management
Cycle	Grade
ECTS Credits	6.0
Academic year	2023 - 2024

Study (s)

Degree	Center	Acad. year	Period
1332 - Degree in Business Intelligence and Analytics	Faculty of Economics	2	Second term

Subject-matter

Degree	Subject-matter	Character
1332 - Degree in Business Intelligence and Analytics	19 - Dirección de la Tecnología y la Innovación	Obligatory

Coordination

Name	Department
MARCH CHORDA, ISIDRE	105 - Business Administration 'Juan José Renau Piqueras'

SUMMARY

This subject provides an overview to the technology and innovation management field, paying special attention to the meaning and implications of the technological change, the innovation types and the strategies oriented to promote innovation at the firm's level. The content is structured in two parts. First one introduces and develops the basic concepts surrounding the technology and innovation management: technology basis, innovation basis, innovative organization and new approaches in innovation. The second part introduces the 3 key stages in the management of innovation: exploration, development and exploitation. The students are expected to learn the main tools being used in each of these stages. Next, an overview to the main innovation databases both at the enterprise and territorial level. Finally, the program ends by presenting the main programs and institutions giving support to the innovation.



PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

It is recommended to have passed the subject "Dirección Estratégica", in the first course of the degree

OUTCOMES

1332 - Degree in Business Intelligence and Analytics

- Be able to plan, organise, monitor and evaluate the implementation of business strategies.
- Demonstrate skills for analysis and synthesis.
- Be able to analyse and search for information from diverse sources.
- Be able to learn autonomously.
- Be able to work in a team demonstrating commitment to quality, ethics, equality and social responsibility.
- Reach strategic diagnoses in complex and uncertain environments using appropriate methodologies.

LEARNING OUTCOMES

- Identify and assess the main trends and competitive factors at the innovation field.
- To learn the management tools, techniques and strategic policies for adapting to these trends and improving the firm's competitiveness.
- To present strategies or action plans in the field of innovation and learn the requirements needed to implement them effectively
- Recognize the need in new companies to apply strategies guided by the innovation and adaptation to change.
- Identify the elements and agents involved in innovation processes, from generation to exploitation and dissemination
- Become familiar with the main innovation management tools at the firm's reach nowadays.
- Learn the new explanatory approaches around innovation and its impact
- Identify the key aspects of the organization, including the human resources and business culture supporting innovation.



- Become familiar with the main innovation indicators at the business and territorial level.
- Team-working ability
- Present and communicate effectively both orally and in writing

DESCRIPTION OF CONTENTS

1. TECHNOLOGY BASIS

- . Technology function
- . Technological change
- . Technology and enterprise

2. INNOVATION BASIS

- . R&D
- . Innovation concept
- . Types of innovation
- . Innovation diffusion
- . Innovation strategy

3. INNOVATIVE ORGANIZATION

- . Innovation process
- . Organization
- . Managerial abilities
- . Human resources
- . Firm's culture

4. NEW APPROACHES IN INNOVATION

- . Innovation in value
- . Frugal Innovation Lean
- . Blue oceans
- . Open innovation
- . Innovative entrepreneurial formats: start-ups

**5. INNOVATION MANAGEMENT I: EXPLORATION**

- . Innovation screening
- . Creativity, idea generation
- . Validation of innovative projects
- . Technological and competitive watch
- . Change management

6. INNOVATION MANAGEMENT II: DEVELOPMENT

- . Design thinking
- . New product development
- . Rapid prototyping

7. INNOVATION MANAGEMENT III: EXPLOITATION

- . Project management
- . R&D projects
- . Indicators of innovation impact

8. SUPPORTIVE ENVIRONMENT TO INNOVATION

- . Innovation support programmes
- . Innovation support institutions
- . Innovation databases
- . Innovation indicators at the firm's and territorial level

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	30,00	100
Computer classroom practice	30,00	100
Study and independent work	90,00	0
TOTAL	150,00	

TEACHING METHODOLOGY

Participatory lectures, to present the essential theoretical contents in the classroom.



Problem solving, case studies at the individual and team level.

Practical exercises, oral presentations, debates.

Application of methodologies and tools linked to innovation management.

EVALUATION

The subject will be assessed by:

- 1.- Written exam: 4 points (minimum mark 1,8 points to opt to pass the subject)
- 2.- Practical assignments, either individual and in group, together with the oral presentation: 5 points (minimum mark 2 points to opt to pass the subject)
- 3.- Active participation and involvement in the learning process: 1 point

REFERENCES

Basic

- Manual de Oslo (2018), Manual de Oslo, OCDE
- TIDD, J., BESSANT, J. (2007), Managing Innovation, John Wiley and Sons, London
- VALLS, J. ESCORSA, P. (2003), Tecnología e innovación en la empresa: dirección y gestión, Edicions UPC, Barcelona.
- Fundación COTEC (2020): Informe COTEC, 2020, Fundación Cotec, Madrid
- EUROSTAT (2020), <https://ec.europa.eu/eurostat/web/science-technology-innovation/publications>

Additional

- CHRISTENSEN, C.M. (2000), The Innovator's dilemma, Harper Business
- Morcillo, P. (2007) "Cultura e innovación empresarial, Thomson, Madrid
- March, I. (2017). Elegidos o atrapados, <http://www.innovaavant.com/mi-nuevo-libro/>