

30174 - Management of Innovation and Technology Policy

Syllabus Information

Academic year: 2023/24

Subject: 30174 - Management of Innovation and Technology Policy

Faculty / School: 179 - Centro Universitario de la Defensa - Zaragoza

Degree: 563 - Bachelor's Degree in Industrial Organisational Engineering

ECTS: 4.5

Year: 3

Semester: Second semester

Subject type: Compulsory

Module:

1. General information

The main objective is to be able to manage innovation and technological development using basic tools of technological analysis and strategic planning in the specific framework of security and defence, as well as technological policy inherent to the collaborations and technological transfers and the innovation system in Spain.

These approaches and objectives are aligned with the following Sustainable Development Goals (SDGs) of the United Nations Agenda 2030 (<https://www.un.org/sustainabledevelopment/es/>), in such a way that the acquisition of the learning results of the subject provides training and knowledge, skills and competencies to contribute to some extent to their achievement. Specifically, on objective 5 on gender equality in research work and objective 9 on industry, innovation and infrastructure.

2. Learning results

- Designs and implements innovation and technological development strategies in organizations.
- Designs and implements technology watch systems to defend against competitors and take advantage of business opportunities in the market
- Uses patent systems as a means of protecting innovation and as a means of identifying competitive opportunities.
- Performs technology audits to diagnose the comparative situation of the organization with its competitors.
- Designs and implements effective technology transfer systems to improve organizational competitiveness.
- Knows the factors of success and failure in the development and adoption of product and process innovations in organizations
- Knows how to evaluate and select the most appropriate R&D&I proposals in accordance with the technological innovation strategy.
- Manages the development of innovation activities in the organization (new products and processes) identifying the appropriate modes of action for their proper planning and management.
- Knows how to plan and decide on early cancellations of technological innovation development.
- Knows the principles of formation and management of multidisciplinary teams of human resources for the development of innovations
- Knows the structure of public innovation systems in which organizations will develop technological innovations
- Establishes and manages technological cooperation agreements with other economic agents (companies and research centres)
- Knows and knows how to use the external funding sources available in the public innovation systems for the realization of innovation activities
- Prepares proposals for innovation and technological development activities for national and international R&D&I plans.

3. Syllabus

Topic 1 - Innovation management

Theme 2 - Auditing, Surveillance and Technology Foresight

Topic 3 - Protection of knowledge

Theme 4 - Selection and management of innovation development

Topic 5 - Technology transfer and cooperation

Topic 6 - Innovation systems

4. Academic activities

- Lectures and flipped classroom: theoretical foundations.
- Practical classes: application in the practical work of innovation management.
- Presentation of the State of the Art of a technology with utility in Defence: this will be done in working groups.
- Personal study and work, tutoring.
- Evaluation Tests: individual examinations and tests.

5. Assessment system

FIRST CALL

Continuous assessment:

1. Individual practice topics 1 and 2 (20%).
2. Individual exam topics 1 and 2 (25%).
3. Group practice (15%).
5. Individual practice topic 4 (20%).
6. Individual exam topics 5 and 6 (20%).

The final grade will be calculated according to the specific weight of each test (no minimum grade).

Global test: Individual exam for those who do not pass the subject through continuous assessment and/or want to improve their grade.

SECOND CALL

Individual examination.

ASSESSMENT CRITERIA

In the theoretical, theoretical-practical and practical tests knowledge of the subjects of study and interpretation of the questions posed according to the contents will be evaluated.

In the group practice, the contents provided, the design of the search methodology, the technological analysis, the coherence between sections, the correct presentation of the bibliography and the general design will be evaluated

INSTRUMENTS (I) vs. LEARNING RESULTS (RA)

Instruments	Weighting	RA1	RA2	RA3	RA4	RA5	RA6	RA7	RA8	RA9	RA10	RA11	RA12	RA13	RA14
Individual practices	40%	X	X		x	x	x	x	x	x	x	x	x	x	x
Theoretical-practical tests	45%	x	X	x	x	x	x	x	x	x	x	x	x	x	x
Directed work	9%	x	x	x	x	x			x						
Introduction State of the Art	1%	x	x	x	x	x	x	X							