



Course guide

295108 - 295II023 - Technology Innovation 2

Last modified: 27/05/2024

Unit in charge: Barcelona East School of Engineering
Teaching unit: 732 - OE - Department of Management.

Degree: MASTER'S DEGREE IN INTERDISCIPLINARY AND INNOVATIVE ENGINEERING (Syllabus 2019). (Compulsory subject).

Academic year: 2024 **ECTS Credits:** 6.0 **Languages:** English

LECTURER

Coordinating lecturer: Jordi Olivella Nadal

Others: Jordi Olivella Nadal

PRIOR SKILLS

You must have passed the subject Technological Innovation or another with a similar content

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

CEMCEAM-07. (ENG) Gestionar la Investigación, Desarrollo e Innovación Tecnológica, atendiendo a la transferencia de tecnología y los derechos de propiedad y de patentes

CEMUEII-05. Apply predictive analytics to identify risks and opportunities for innovation in different areas of the company, planning and managing a project to create a new technological product and its business model.

CEMUEII-07. Identify and evaluate internal and external technologies, both consolidated and emerging, and propose management actions in accordance with the company's strategy. Plan and manage RDI projects and recognize the procedures to obtain public-private financing for the mentioned projects.

General:

CGMUEII-02. To manage, plan and supervise multidisciplinary teams according to technological creativity, business opportunity, social impact and sustainable development.

CGMUEII-03. Analyze the economic, social and environmental impact of technical solutions to base strategic decisions on criteria of objectivity, transparency and professional ethics.

CGMUEII-04. Transfer technological solutions in the form of products, services, processes or facilities in an efficient and sustainable manner, with an attitude of leadership and entrepreneurial spirit.

Transversal:

01 EIN. ENTREPRENEURSHIP AND INNOVATION: Knowing about and understanding how businesses are run and the sciences that govern their activity. Having the ability to understand labor laws and how planning, industrial and marketing strategies, quality and profits relate to each other.

02 SCS. SUSTAINABILITY AND SOCIAL COMMITMENT. Being aware of and understanding the complexity of social and economic phenomena that characterize the welfare society. Having the ability to relate welfare to globalization and sustainability. Being able to make a balanced use of techniques, technology, the economy and sustainability.

03 TLG. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.

TEACHING METHODOLOGY

The teaching of the course is based on project-based learning



LEARNING OBJECTIVES OF THE SUBJECT

Upon completion of the course, the student should be able to plan and manage RDI projects.

STUDY LOAD

Type	Hours	Percentage
Self study	96,0	64.00
Hours small group	13,5	9.00
Hours large group	40,5	27.00

Total learning time: 150 h

CONTENTS

Initial block

Description:

The course consists of preparing a proposal for technological innovation that could be submitted to a public call for funding. The work will be done in groups of 2 or 3 people.

In this initial block or block 1 the topic will be defined, a call will be chosen and a work plan will be defined for the rest of the course. The work plan will include two intermediate stages.

This block will include presentations by experts and project management content.

Full-or-part-time: 37h

Theory classes: 9h

Practical classes: 6h

Self study : 22h

Project development

Description:

Based on the work plan defined in the initial block, a technological innovation proposal will be prepared that could be submitted to a public call for funding. The work will be divided into two intermediate blocks (blocks 2 and 3) and a final one (block 3). The latter will consist of the proposal itself.

Full-or-part-time: 113h

Theory classes: 25h

Practical classes: 14h

Self study : 74h

GRADING SYSTEM

Block 1: 30%

Block 2: 20%

Block 3: 20%

Block 4: 30%



BIBLIOGRAPHY

Basic:

- Nicholas, John M.; Steyn, Herman. Project management for engineering, business and technology. 5th ed. Abingdon, Oxon: Routledge, 2017. ISBN 1138937347.

Complementary:

- Armstrong, Paul. Disruptive technologies : understand, evaluate, respond. London: Kogan Page, [2017]. ISBN 9780749477288.