

SUBJECT TEACHING GUIDE

1039 - Projects

Master's Degree in Industrial Engineering
Master's Degree in Industrial Engineering

Academic year 2024-2025

1. IDENTIFYING DATA					
Degree	Master's Degree in Industrial Engineering Master's Degree in Industrial Engineering			Type and Year	Compulsory. Year 1 Compulsory. Year 1
Faculty	School of Industrial Engineering and Telecommunications				
Discipline	Installations Installations, Plants and Complementary Buildings				
Course unit title and code	1039 - Projects				
Number of ECTS credits allocated	5	Term	Semester based (2)		
Web					
Language of instruction	Spanish	English Friendly	Yes	Mode of delivery	Face-to-face

Department	DPTO. TRANSPORTES Y TECNOLOGIA DE PROYECTOS Y PROCESOS				
Name of lecturer	MARIA DEL CARMEN RUIZ PUENTE				
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Other lecturers	BERNARDO ARGOS BARRIOCANAL				

3.1 LEARNING OUTCOMES
- To identify the multidisciplinary approach involved in the realization of industrial engineering projects.
- To identify and define the scope, tasks and resources needed to develop an engineering project.
- To identify and define the key factors of project management.
- To know and apply the procedures and tools of project management.
- To know and apply the features and methods of project leadership.

4. OBJECTIVES
To distinguish the types of projects and their stages of performance.
To analyse the feasibility of projects.
To identify the role of the project director within the organization and project team.
To outline and apply a management methodology to achieve project success.
To know and apply management procedures of costs, resources, timeline, risks and procurement.
To know and apply existing tools for project management.
To cope with the technical assistance skills and consultancy works derived from industrial projects.
To know and elaborate reports of the project.

6. SUBJECT PROGRAM	
CONTENTS	
1	Life cycle of the project.
2	Feasibility of the project.
3	Project management.
4	Integral management of projects.
5	Tools of management.
6	Building up and control of industrial projects.
7	Building up and control of Research&Innovation projects.

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessn	%
Written exam	Written exam	Yes	Yes	50,00
Written Exam	Written exam	No	Yes	35,00
Laboratory test	Laboratory evaluation	No	No	15,00
TOTAL				100,00
Observations				
To pass the subject, the weighted score must be greater than or equal to 5.				
In case of sanitary alert due to COVID-19, the assessment of the subject will be equally done on-line.				
Observations for part-time students				
Partial-time students can take the written exam of the subject on the official dates of the calendar.				

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

De Cos, M., 1995; Teoría General del Proyecto. Ingeniería de Proyectos/Project Engineering. Síntesis, Madrid.

De Cos, M., 1995; Teoría General del Proyecto. Dirección de Proyectos/Project Management. Síntesis, Madrid.

Project Management Institute (PMI), 1998; Guía de los Fundamentos de la Dirección de Proyectos. Traducción de "A Guide to the Project Management Body of Knowledge". PMI, Upper Darby (PA), 1996. Traducida por la Asociación Española de Ingeniería de Proyectos AEIPRO.

Heredia, R., 1995; Dirección Integrada de Proyectos: "Project Management". Universidad Politécnica de Madrid.

Kerzner, H., 2001; Project Management: A Systems Approach to Planning, Scheduling and Controlling. Van Nostrand Reinhold, New York.

Kerzner, H., 2006; Project Management: Case Studies. John Wiley & Sons, Inc., New Jersey.

Strategic management: a stakeholder approach. Freeman E. (2010). Ed. Cambridge University Press.

Stakeholders: theory and practice. Friedman A.L., Miles S. (2006). Ed. Oxford University Press.

AENOR. Norma UNE-ISO 21.500:2022. Gestión de proyectos, programas y carteras de proyectos. Contexto y conceptos.

AENOR. Norma UNE-ISO 21.502:2022. Dirección y gestión proyectos, programas y carteras de proyectos. Directrices para la dirección y gestión de proyectos.

A guide to the project management body of knowledge. PMBOK Guide and the standard for the project management (2021). Ed. PMI.

ICB 4.0-Bases para la competencia individual en dirección de proyectos, programas y carteras de proyectos. Dominio dirección de proyectos (2018). Ed. AEIPRO.