

[MHJ201] PROJECT MANAGEMENT

GENERAL INFORMATION

Studies	UNIVERSITY MASTER IN INDUSTRIAL ENGINEERING		Subject	?
Semester	1	Course	1	Mention / Field of specialisation
Character	COMPULSORY			
Plan	2022	Modality	Face-to-face	Language ENGLISH
Credits	3	Hours/week	1.67	Total hours 30 class hours + 45 non-class hours = 75 total hours

2030 AGENDA GOALS



PROFESSORS

APAOLAZA PEREZ DE EULATE, UNAI
SARALEGUI ZALBIDE, EIDER

REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
[!] <i>Fundamentos de Gestión de Proyectos</i>	(No previous knowledge required)

LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
MHRA09 - To demonstrate the ability to organize and direct companies		x		0,64
MHRA15 - To demonstrate knowledge and capabilities for integrated project management		x		1,56
MHRA27 - To demonstrate the ability to integrate knowledge and face the complexity of formulating judgments based on information that, being incomplete or limited, includes reflections on the social, health and safety, environmental, economic and industrial implications and responsibilities		x		0,2
MHRA28 - To communicate your conclusions and the knowledge and ultimate reasons that support them to specialized and non-specialized audiences in a clear and unambiguous way		x		0,08
MHRA30 - To work with people, involving and directing them in a dynamic aimed at a common objective that includes reflection on their ethical and social responsibility, with a global vision of the work to be carried out and the characteristics that it requires (quality, deadlines,...), assuming responsibility for the decisions made		x		0,28
MHR126 - To apply the knowledge acquired and your problem-solving skills in new, little-known or changing environments within broader (or multidisciplinary) contexts related to your area of study		x		0,24
Total:				3

KC: Knowledge or Content / SK: Skills / AB: Abilities

ENAAE LEARNING RESULTS

ENAAE LEARNING RESULTS	ECTS
ENA124 - Knowledge and comprehension: Deep knowledge and comprehension of the engineering disciplines of their speciality, at the level necessary to acquire the rest of the competencies of the degree.	0,43
ENA127 - Analysis in engineering: Ability to analyse new and complex engineering products, processes and systems within a broader multidisciplinary context; select and apply the most appropriate analysis, calculation and experimental methods already established, as well as innovative methods; and critically interpret the results of such analyses.	0,43
ENA131 - Engineering projects: Ability to project, develop and design new complex products (parts, components, finished products, etc.), processes and systems with specifications defined incompletely and/or with conflicts, which require the integration of knowledge from different disciplines, and consider social, health and safety, environmental, economic and industrial aspects; to select and apply the appropriate methodologies or employ creativity to develop new project methodologies.	0,43
ENA138 - Practical application of engineering: Complete knowledge of the applicable techniques and methods of analysis, project and research, as well as their limitations.	0,43
ENA143 - Practical application of engineering: Critical knowledge and comprehension of economic, organisational and management issues (such as project, risk and change management)	0,43
ENA145 - Preparation of judgements: Ability to manage complex technical or professional activities or projects that require new approach approaches, assuming responsibility for the decisions made.	0,43
ENA147 - Communication and Teamwork: Ability to operate effectively in domestic contexts as a member or leader of a team, which may be composed of people of different disciplines and levels, and who can use virtual communication tools.	0,43
Total:	3

SECONDARY LEARNING RESULTS

RMH109 [!] *Conoce y aplica las nuevas metodologías de gestión de proyectos para visualizar y monitorizar el estado real del proyecto*

LEARNING ACTIVITIES	CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams		3 h.	3 h.
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning		3 h.	3 h.
Conducting tests, giving presentations, presenting defences, taking examinations and/or doing checkpoints	2 h.		2 h.
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams	1 h.	8,5 h.	9,5 h.
Computer simulation exercises, individually and/or in teams	1 h.	1 h.	2 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	5 h.		5 h.
Carrying out exercises and solving problems individually and/or in teams	3 h.	1 h.	4 h.
Tutoring sessions and monitoring of training activities		1 h.	1 h.
Reading and personal and/or shared analysis of relevant and current publications (books, articles, catalogues, etc.) related to the speciality		2 h.	2 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	40%	Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	
Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems	60%	Individual written and/or oral tests or individual coding/programming tests	
CH - Class hours: 12 h. NCH - Non-class hours: 19,5 h. TH - Total hours: 31,5 h.			

RMH108 [!] *Conoce las fases según la gestión clásica de proyectos, así como las técnicas y herramientas asociadas y sabe cuándo hay que utilizarlas aplicadas sobre todo al tiempo, coste y especificaciones*

LEARNING ACTIVITIES	CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams		9 h.	9 h.
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning		3 h.	3 h.
Carrying out/resolving projects/challenges/cases, etc. to provide solutions to problems in interdisciplinary contexts, real and/or simulated, individually and/or in teams	1 h.	4,5 h.	5,5 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	5 h.		5 h.
Tutoring sessions and monitoring of training activities		1 h.	1 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	90%	Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	
Presentation and defence of exercises, case studies, computer practical work, simulation practical work, laboratory practical work, term projects, end of degree project, master's thesis, challenges and problems	10%		

CH - Class hours: 6 h.
NCH - Non-class hours: 17,5 h.
TH - Total hours: 23,5 h.

RMH110 [!] *Aplica las metodologías de cadena crítica para la gestión de proyectos en entornos multiproyecto*

LEARNING ACTIVITIES	CH	NCH	TH
Development and writing of records, reports, presentations, audiovisual material, etc. on projects/work experience/challenges/case studies/experimental investigations carried out individually and/or in teams	1 h.		1 h.
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning		4 h.	4 h.
Conducting tests, giving presentations, presenting defences, taking examinations and/or doing checkpoints	3 h.		3 h.
Computer simulation exercises, individually and/or in teams	1 h.	1 h.	2 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	6 h.		6 h.
Carrying out exercises and solving problems individually and/or in teams	1 h.	2 h.	3 h.
Tutoring sessions and monitoring of training activities		1 h.	1 h.
EVALUATION SYSTEM	W	MAKE-UP MECHANISMS	
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	10%	Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	
Individual written and/or oral tests or individual coding/programming tests	90%	Individual written and/or oral tests or individual coding/programming tests	
CH - Class hours: 12 h. NCH - Non-class hours: 8 h. TH - Total hours: 20 h.			

CONTENTS

Managing Project phases review:

1. Definition
2. Planning
3. Execution
4. Monitoring and control
5. Closing

Fundamentals of Agile project management:

1. Basic of agile project management with SCRUM
2. Basic of agile project management with KANBAN

Fundamentals of managing multi-project environments:

1. Practice: The bead experiment
2. Basic of critical chain methodology

LEARNING RESOURCES AND BIBLIOGRAPHY

Learning resources	Bibliography
Moodle Platform	Project Management Body of Knowledge. Project Management Institute (2017)
Technical articles	Wiley Guide, Managing Projects. Morris, P. & Pinto, J.K. (2004)
Class presentations	The Oxford Handbook of Project Management. Morris, P.; Pinto, J.K. & Söderlund (2012)
Slides of the subject	La Meta: un proceso de mejora continua. Eliyahu M. Goldratt, Ed. Díaz de Santos, S.A. (1993)
	Cadena Crítica. Eliyahu M. Goldratt, Ed. Días de Santos, S.A. (2001)
	Project Management in the Fast Lane. Newbold, R.C., CRC Press

(1998)

Critical Chain Project Management (3rd edition). Leach, L.P.; Artech House, Inc. (2005)