

## [MHJ305] STRATEGY AND MANAGEMENT OF TECHNOLOGICAL INNOVATION

### GENERAL INFORMATION

<b>Studies</b>	UNIVERSITY MASTER IN INDUSTRIAL ENGINEERING	<b>Subject</b>	?
<b>Semester</b>	2	<b>Course</b>	1
<b>Character</b>	COMPULSORY	<b>Mention / Field of specialisation</b>	
<b>Plan</b>	2025	<b>Modality</b>	Face-to-face
<b>Credits</b>	3	<b>Hours/week</b>	1.46
		<b>Language</b>	CASTELLANO
		<b>Total hours</b>	26.2 class hours + 48.8 non-class hours = <b>75 total hours</b>

### 2030 AGENDA GOALS



### PROFESSORS

ALBERDI ZABALETA, JONE

### REQUIRED PREVIOUS KNOWLEDGE

Subjects	Knowledge
(No specific previous subjects required)	(No previous knowledge required)

### LEARNING RESULTS

LEARNING RESULTS	KC	SK	AB	ECTS
<b>MH2510</b> - Demonstrate strategy and planning skills applied to different organizational structures.		x		0,48
<b>MH2516</b> - Demonstrate capacity for the management of Research, Development and Technological Innovation.		x		1,76
<b>MH2525</b> - Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context.		x		0,4
<b>MH2526</b> - Apply acquired knowledge and problem-solving skills in new, unfamiliar or changing environments within broader (or multidisciplinary) contexts related to their area of study.		x		0,08
<b>MH2527</b> - Demonstrate the ability to integrate knowledge and deal with the complexity of formulate judgments based on incomplete or limited information, including reflections on the SDGs, human rights and fundamental rights, and on social, health and safety, environmental, economic and industrial implications and responsibilities.		x		0,08
<b>MH2528</b> - Communicate its conclusions and the ultimate knowledge and rationale behind them to specialized and non-specialized audiences in a clear and unambiguous manner.		x		0,08
<b>MH2529</b> - Possess the learning skills that will enable them to continue studying in a manner that will be largely self-directed or autonomous.		x		0,08
<b>MH2530</b> - Work with people, involving them and leading them in a dynamic directed towards 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 required (quality, deadlines, etc.), assuming responsibility for the decisions taken.		x		0,04
<b>Total:</b>				<b>3</b>

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

### SECONDARY LEARNING RESULTS

**RMH140** [!] *Conoce los principios fundamentales de la estrategia y gestión de la innovación.*

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	4 h.	4,2 h.	8,2 h.
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning		8 h.	8 h.
Conducting tests, giving presentations, presenting defences, taking examinations and/or doing checkpoints	,8 h.		,8 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	4 h.		4 h.
Seminars, debates and/or workshops to deepen and/or share experiences.	1 h.		1 h.
Reading and personal and/or shared analysis of relevant and current publications (books, articles, catalogues, etc.) related to the speciality		6 h.	6 h.
<b>EVALUATION SYSTEM</b>	<b>W</b>	<b>MAKE-UP MECHANISMS</b>	
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory	60%	Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term	

exercises, term projects, challenges and problems		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	20%	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
Individual written and/or oral tests or individual coding/programming tests	20%	Individual written and/or oral tests or individual coding/programming tests

**CH - Class hours:** 9,8 h.  
**NCH - Non-class hours:** 18,2 h.  
**TH - Total hours:** 28 h.

**RMH141** [!] *Es capaz de identificar las necesidades de vigilancia, e implantar un sistema acorde con las necesidades estratégicas de la empresa.*

**LEARNING ACTIVITIES**

	<b>CH</b>	<b>NCH</b>	<b>TH</b>
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	4 h.	2 h.	6 h.
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning		5 h.	5 h.
Conducting tests, giving presentations, presenting defences, taking examinations and/or doing checkpoints		1 h.	1 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	4 h.		4 h.
Reading and personal and/or shared analysis of relevant and current publications (books, articles, catalogues, etc.) related to the speciality		7 h.	7 h.

**EVALUATION SYSTEM**

	<b>W</b>
Reports on the completion of exercises, case studies, computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems	60%
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	20%
Individual written and/or oral tests or individual coding/programming tests	20%

**MAKE-UP MECHANISMS**

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  
 Individual written and/or oral tests or individual coding/programming tests

**CH - Class hours:** 8 h.  
**NCH - Non-class hours:** 15 h.  
**TH - Total hours:** 23 h.

**RMH142** [!] *Es capaz de definir un modelo de negocio sostenible y estructurado que propicie el desarrollo de una nueva actividad de futuro susceptible de ser puesta en marcha.*

**LEARNING ACTIVITIES**

	<b>CH</b>	<b>NCH</b>	<b>TH</b>
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	2,4 h.	5 h.	7,4 h.
Personal study and flexible development of concepts and subjects using active dynamics, to foster more meaningful learning	4 h.	5,6 h.	9,6 h.
Presentation by the teacher in the classroom, in participatory classes, of concepts and procedures associated with the subjects	2 h.		2 h.
Reading and personal and/or shared analysis of relevant and current publications (books, articles, catalogues, etc.) related to the speciality		5 h.	5 h.

**EVALUATION SYSTEM**

	<b>W</b>
Reports on the completion of exercises, case studies,	80%

**MAKE-UP MECHANISMS**

Reports on the completion of exercises, case studies, computer

computer exercises, simulation exercises, laboratory exercises, term projects, challenges and problems  
Individual written and/or oral tests or individual coding/programming tests

20%

exercises, simulation exercises, laboratory exercises, term projects, challenges and problems  
Individual written and/or oral tests or individual coding/programming tests

**CH - Class hours:** 8,4 h.

**NCH - Non-class hours:** 15,6 h.

**TH - Total hours:** 24 h.

## CONTENTS

### LEARNING RESOURCES AND BIBLIOGRAPHY

#### Learning resources

Moodle Platform  
 Topic related web quires  
 Video projections  
 Technical articles  
 Computer practical training  
 Subject notes

#### Bibliography

<https://labur.eus/hu1fpd4d>  
 ISO 56006:2021 . ISO 2021  
 Managing innovation. Joe Tidd and John Bessant. John Wiley 2021  
 From theory to practice: systematising and testing business model archetypes for circular economy. Marina P.P. Pieroni, Tim C. McAloone, Daniela C.A. Pigosso. Resources, Conservation and Recycling. Vol. 162. November 2020, 105029 2020  
 Business model innovation in small and medium-sized enterprises: an exploration of key drivers and performance implications. Dorleta Ibarra Zuluaga ; directores Juan Ignacio Igartua, Jaione Ganzarain. Mondragon Unibertsitatea. Goi Eskola Politeknikoa 2020  
 Frascati Manual 2015 OECD. OECD 2015  
<http://www.oecd.org/sti/frascati-manual-2015-9789264239012-en.htm>  
 The sustainable business model pattern taxonomy - 45 patterns to support sustainability-oriented business model innovation Florian Lüdeke-Freund, Sarah Carroux, Alexandre Joyce, Lorenzo Massa, Henning Breuer. Sustainable Production and Consumption. Vol. 15. July 2018  
 Casos de dirección estratégica de la empresa. José Emilio Navas López, Luis Angel Guerras Martín [eds. y coaut.]; autores, Emilio Álvarez Suescun ... [et al.]. Aranzadi 2014  
 Managing Your Innovation Portfolio by Bansi Nagji and Geoff Tuff. Harvard Business Review 2012  
<https://hbr.org/2012/05/managing-your-innovation-portfolio>  
 Definition and role of an innovation strategy. Bernard R Katz, Niek Du Preez, Cornelius Stephanus Schutte. SAIIE conference proceedings. Pp. 60-74 2010  
 What Is Strategy? Porter, Michael E.. Harvard Bussines Review 1996 <https://hbr.org/1996/11/what-is-strategy>  
 Competitive and Corporate Strategy. Irwin Professional Publishing 1996