



## FICHA TÉCNICA DE LA ASIGNATURA

Datos de la asignatura	
Subject name	Entrepreneurship and Innovation
Subject code	DOI-MII-613
Main program	<a href="#">Official Master's Degree in Industrial Engineering</a>
Involved programs	Grado en Administración y Dirección de Empresas y Máster Universitario en Ingeniería Industrial [Sexto Curso] Máster Universitario en Ingeniería Industrial y Máster Universitario en Administración de Empresas [Segundo Curso] Máster Universitario en Ingeniería Industrial [Segundo Curso] Máster Universitario en Ingeniería Industrial y Máster Universitario en Administración de Empresas [Segundo Curso]
Level	Postgrado Oficial Master
Quarter	Semestral
Credits	6,0 ECTS
Type	Obligatoria
Department	Department of Industrial Organization
Coordinator	Pedro Sánchez Martín

Datos del profesorado	
<b>Teacher</b>	
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## DATOS ESPECÍFICOS DE LA ASIGNATURA

Contextualización de la asignatura
<b>Aportación al perfil profesional de la titulación</b>
<p>This course is oriented to provide the students with a global perspective of the innovation process using a learning-by-doing approach combining both theory and practice.</p> <p>The tools, methodologies and processes which will be studied during the course are meant to help students in future entrepreneurial or intra-entrepreneurial endeavours.</p> <p>The main assumptions for the course are as follows:</p>



- Innovation and entrepreneurship are all about a particular mindset related to how we approach problem solving.
- Innovation happens everywhere, from universities to startups and big corporations. Same happens with entrepreneurs, they can be found everywhere.
- There are several approaches to entrepreneurship, startups, search funds, corporate entrepreneurship...

## Prerequisitos

No prior knowledge is required for attending this course.

## Competencias - Objetivos

### Competencias

#### GENERALES

<b>BA03</b>	Saber evaluar y seleccionar la teoría científica adecuada y la metodología precisa de sus campos de estudio para formular juicios a partir de información incompleta o limitada incluyendo, cuando sea preciso y pertinente, una reflexión sobre la responsabilidad social o ética ligada a la solución que se proponga en cada caso.
<b>BA06</b>	Haber desarrollado la autonomía suficiente para participar en proyectos de investigación y colaboraciones científicas o tecnológicas dentro su ámbito temático, en contextos interdisciplinarios y, en su caso, con una alta componente de transferencia del conocimiento
<b>CG04</b>	Realizar investigación, desarrollo e innovación en productos, procesos y métodos
<b>CG11</b>	Poseer las habilidades de aprendizaje que permitan continuar estudiando de un modo autodirigido o autónomo.

#### ESPECÍFICAS

<b>CMG08</b>	Capacidad para la gestión de la Investigación, Desarrollo e Innovación tecnológica
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### Resultados de Aprendizaje

<b>RA01</b>	Adquirir sensibilidad hacia la realidad empresarial que le rodea, adquiriendo un conocimiento y una cierta experiencia útil para una futura actividad emprendedora.
<b>RA02</b>	Internalizar un esquema de trabajo que le permita abordar de manera organizada el proceso de puesta en marcha de una nueva empresa
<b>RA03</b>	Practicar y ser consciente de las habilidades personales necesarias para crear y/o mantener una empresa

## BLOQUES TEMÁTICOS Y CONTENIDOS

### Contenidos – Bloques Temáticos

1. The Innovation process
2. Design Thinking



4. Technological Trends
5. Lean Startup: Business Model Design
6. Lean Startup: Customer Development
7. Lean Startup: Agile Methodologies
8. Metrics
9. The Lean Business Plan
10. Entrepreneurship and common errors
11. Fundraising

## METODOLOGÍA DOCENTE

### Aspectos metodológicos generales de la asignatura

#### Metodología Presencial: Actividades

<b>Lectures:</b> the teacher will give specific topics about the different aspects of the entrepreneurial activity	BA03, CG11
<b>Tools and Workshops:</b> focusing on the main entrepreneurship problems, some specific cases will be analyzed and discussed, helping students to identify, think and reflect on different aspects of the entrepreneurial activity. These cases will have previously been given to and read by the students.	CG04, CG11
<b>Entrepreneurs' conferences:</b> some conferences will be given by real entrepreneurs that have launched different projects. This will help students to understand from real experiences.	BA03
<b>Entrepreneurship Projects:</b> developed by the student, organized in teams and presented in class	BA06, CMG08

#### Metodología No presencial: Actividades

<b>Autonomous individual work cases</b>	BA03, CG04
<b>Autonomous work in groups - entrepreneurial project</b>	CG04, CMG08
<b>Exam Study</b>	BA03, CG11

## RESUMEN HORAS DE TRABAJO DEL ALUMNO

### CLASSROOM HOURS

Clase magistral y presentaciones generales

Resolución en clase de problemas prácticos



40.00	20.00
<b>NON-PRESENTIAL HOURS</b>	
Estudio y resolución de problemas prácticos fuera del horario de clase por parte del alumno	Estudio de carácter práctico individual
40.00	80.00
<b>ECTS CREDITS: 6,0 (180,00 hours)</b>	

## EVALUACIÓN Y CRITERIOS DE CALIFICACIÓN

Evaluation activities	Evaluation criteria	Weight
Final Exam	Theoretical and practical questions	15
Team project	Innovation, Clearness, Completeness and Collaborative Work	50
Class Participation and Attendance	Attendance percentage and participation with questions and answers to class cases	35

## PLAN DE TRABAJO Y CRONOGRAMA

Activities	Date of realization	Delivery date
<b>Week #1 Workshop #1</b> Introduction to ICAI Venture Builders The need for Innovation Introduction to Adaptive Management Methods Design Thinking Overview Lean Startup Overview ?Agile Overview		
<b>Week #2 Workshop #2</b> Technological Trends Design Thinking approach to problem solving Observation, Ideation and Basic Prototyping Team building		
<b>Week #3 Workshop #3</b>		



Identification and selection of startup ideas Lean Startup Basics Business Design: The Business Model Canvas		
<b>Week #4 Workshop #4</b> Identification of business hypothesis Hypothesis prioritization First experiments Customer Interviews		
<b>Week #5 Sprint #1</b> Lessons Learned First interviews Running more complex experiments Customer Interviews		
<b>Week #6 Sprint #2</b> Lessons Learned MVPs Running more complex experiments Validating through MVPs		
<b>Week #7 Sprint #3</b> Problem validation Identifying early adopters First business model pivots Customer Interviews		
<b>Week #8 Sprint #4</b> Designing experiments Creating MVPs Introduction to metrics The one metric that matters		
<b>Week #9 Sprint #5</b>		



Agile approach to MVPs Design of the sales route Channel validation experiments Customer acquisition experiments		
<b>Week #10 Sprint #6</b> Validating the revenue model Designing the growth engine Validation the positioning Pivoting or continuing		
<b>Week #11 Lean Business Model</b> Draft of the first version of the LBP based on the learnings of the process <ul style="list-style-type: none"><li>• Operation planning</li><li>• Marketing &amp; Sales plan</li><li>• Basic financials</li><li>• Scaling up</li></ul>		
<b>Week #12 Tips</b> Reasons to become an entrepreneur Common pitfalls Building a team Fundraising		
<b>Week #13 Demo Week</b> Pitch preparation Final presentations		

## BIBLIOGRAFÍA Y RECURSOS

### Bibliografía Básica

Osterwalder A, al: "Business Model Generation" (2009)

### Bibliografía Complementaria

- Blanco, C.: "Los principales errores de los emprendedores" Ed. Gestión 2000 (2013)

- Blank, S.: "The four steps to the epiphany" (2013)
- Byers, T. "Technology Ventures: from idea to enterprise", (2008)
- De Pablos, C. et al.: "Los cien errores del emprendimiento" Ed. ESIC (2013)
- Osterwalder A, al: "Value proposition design" (2014)
- Parker, S. C., "The economics of Entrepreneurship" (2009)
- Ries, E.: "The lean startup" Ed. Portfolio Penguin (2011)
- Trías de Bes, F: "El libro negro del emprendedor" Ed. Empresa Activa (2007)

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