



FICHA TÉCNICA DE LA ASIGNATURA

Datos de la asignatura	
Subject name	Entrepreneurship and Innovation
Subject code	DOI-MII-613
Mainprogram	Official Master´s Degree in Industrial Engineering
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	
Teacher	
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DATOS ESPECÍFICOS DE LA ASIGNATURA

Contextualización de la asignatura
Aportación al perfil profesional de la titulación
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.
The tools, methodologies and processes which will be studied during the course are meant to help students



in future entrepreneurial or intra-entrepreneurial endeavours.

The main assumptions for the course are as follows:

- 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

BA03	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.
BA06	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
CG04	Realizar investigación, desarrollo e innovación en productos, procesos y métodos
CG11	Poseer las habilidades de aprendizaje que permitan continuar estudiando de un modo autodirigido o autónomo.

ESPECÍFICAS

CMG08	Capacidad para la gestión de la Investigación, Desarrollo e Innovación tecnológica
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Resultados de Aprendizaje

RA01	Adquirir sensibilidad hacia la realidad empresarial que le rodea, adquiriendo un conocimiento y una cierta experiencia útil para una futura actividad emprendedora.
RA02	Internalizar un esquema de trabajo que le permita abordar de manera organizada el proceso de puesta en marcha de una nueva empresa
RA03	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

Lectures: the teacher will give specific topics about the different aspects of the entrepreneurial activity

BA03, CG11

Tools and Workshops: 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

Entrepreneurs' conferences: some conferences will be given by real entrepreneurs that have launched different projects. This will help students to understand from real experiences.

BA03

Entrepreneurship Projects: developed by the student, organized in teams and

BA06, CMG08



presented in class	BA03, CG04
Metodología No presencial: Actividades	
Autonomous individual work cases	BA03, CG04
Autonomous work in groups - entrepreneurial project	CG04, CMG08
Exam Study	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
NON-PRESENTIAL HOURS	
Estudio y resolución de problemas prácticos fuera del horario de clase por parte del alumno	Estudio de carácter práctico individual
40.00	80.00
ECTS CREDITS: 6,0 (180,00 hours)	

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



Week #1 Workshop #1 Introduction to ICAI Venture Builders The need for Innovation Introduction to Adaptive Management Methods Design Thinking Overview Lean Startup Overview ?Agile Overview		
Week #2 Workshop #2 Technological Trends Design Thinking approach to problem solving Observation, Ideation and Basic Prototyping Team building		
Week #3 Workshop #3 Identification and selection of startup ideas Lean Startup Basics Business Design: The Business Model Canvas		
Week #4 Workshop #4 Identification of business hypothesis Hypothesis prioritization First experiments Customer Interviews		
Week #5 Sprint #1 Lessons Learned First interviews Running more complex experiments Customer Interviews		
Week #6 Sprint #2		



Lessons Learned		
MVPs		
Running more complex experiments		
Validating through MVPs		
Week #7 Sprint #3		
Problem validation		
Identifying early adopters		
First business model pivots		
Customer Interviews		
Week #8 Sprint #4		
Designing experiments		
Creating MVPs		
Introduction to metrics		
The one metric that matters		
Week #9 Sprint #5		
Agile approach to MVPs		
Design of the sales route		
Channel validation experiments		
Customer acquisition experiments		
Week #10 Sprint #6		
Validating the revenue model		
Designing the growth engine		
Validation the positioning		
Pivoting or continuing		
Week #11 Lean Business Model		
Draft of the first version of the LBP based on the learnings of the process		



<ul style="list-style-type: none">• Operation planning• Marketing & Sales plan• Basic financials• Scaling up		
Week #12 Tips Reasons to become an entrepreneur Common pitfalls Building a team Fundraising		
Week #13 Demo Week 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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