

ANX-PR/CL/001-01

LEARNING GUIDE

SUBJECT

103000818 - Introduction To Innovation And Entrepreneurship Management

DEGREE PROGRAMME

10AX - Master Universitario Innovación Digital Ciencia De Datos Itinerario Health

ACADEMIC YEAR & SEMESTER

2020/21 - Semester 1

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1. Description

1.1. Subject details

Name of the subject	103000818 - Introduction To Innovation And Entrepreneurship Management
No of credits	6 ECTS
Type	Compulsory
Academic year of the programme	First year
Semester of tuition	Semester 1
Tuition period	September-January
Tuition languages	English
Degree programme	10AX - Master Universitario Innovación Digital Ciencia de Datos Itinerario Health
Centre	10 - Escuela Tecnica Superior De Ingenieros Informaticos
Academic year	2020-21

2. Faculty

2.1. Faculty members with subject teaching role

Name and surname	Office/Room	Email	Tutoring hours *
Pilar Quevedo Cano (Subject coordinator)		pilar.quevedo@upm.es	Sin horario. The tutoring schedule is indicative and subject to possible changes. Please check tutoring times with the faculty member in charge.

Roberto Martinez Gamero	CAIT	roberto.martinez@upm.es	W - 10:00 - 12:00 Th - 10:00 - 12:00 The tutoring schedule is indicative and subject to possible changes. Please check tutoring times with the faculty member in charge.
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* The tutoring schedule is indicative and subject to possible changes. Please check tutoring times with the faculty member in charge.

2.3. External faculty

Name and surname	Email	Institution
Gonzalo Leon	gonzalo.leon@upm.es	CAIT

3. Prior knowledge recommended to take the subject

3.1. Recommended (passed) subjects

The subject - recommended (passed), are not defined.

3.2. Other recommended learning outcomes

- According to general prerequisites for EIT Digital master program this is the first course for all enrolled students in the Master Degree. Students should have finished their Engineering Degree Project (240 ECTS), accepted in the Master and formally regis

4. Skills and learning outcomes *

4.1. Skills to be learned

CB07 - Que los estudiantes sepan aplicar los conocimientos adquiridos y su capacidad de resolución de problemas en entornos nuevos o poco conocidos dentro de contextos más amplios (o multidisciplinares) relacionados con su área de estudio

CB08 - Que los estudiantes sean capaces de integrar conocimientos y enfrentarse a la complejidad de formular juicios a partir de una información que, siendo incompleta o limitada, incluya reflexiones sobre las responsabilidades sociales y éticas vinculadas a la aplicación de sus conocimientos y juicios

CE-EIT01 - Capacidad para seguir y aplicar los procesos y actividades del emprendimiento para lanzar un empresa de base tecnológica basada en actividades previas de I+D e identificar diferentes fuentes de financiación de emprendimiento e innovación, y seleccionar la más apropiada para el modelo de negocio y la tecnología consideradas.

CE-EIT02 - Capacidad para diseñar las actividades y la estructura de gestión adecuadas para un proyecto de innovación, desde su concepción a la explotación de los resultados, usando un modelo de gestión adaptado al tipo de proyecto.

CG03 - La capacidad de usar la lengua inglesa de manera competente, es decir, con capacitación para tareas complejas de trabajo y estudio.

CG07 - Capacidad de trabajar y comunicarse también en contextos internacionales.

CG08 - La capacidad de traducir innovaciones en soluciones comerciales factibles.

CG09 - La capacidad de transformar las experiencias prácticas en problemas y desafíos de investigación.

4.2. Learning outcomes

RA41 - - In depth understanding of the general process and roles involved in developing an idea and starting up a new technology-based company

RA42 - - - In depth understanding of the basic entrepreneurial finance

RA43 - - - In depth understanding of the important elements in managing companies and developing its human resources

* The Learning Guides should reflect the Skills and Learning Outcomes in the same way as indicated in the Degree Verification Memory. For this reason, they have not been translated into English and appear in Spanish.

5. Brief description of the subject and syllabus

5.1. Brief description of the subject

Introduction to innovation and entrepreneurship management: definition, models and processes of innovation. Organizational structures, corporate innovation, protection of technology, digital economy. Innovation projects management, risks of international projects. Market. Financial support for innovation. Evolution of technology.

5.2. Syllabus

1. 1.- Introduction to Basics course
2. 2.- Concepts and types of innovation
3. .- Innovation context and processes (focused on the ICT sector)
4. The added value of (open) cooperation in innovation activities
5. Innovation ecosystems
6. Digital transformation
7. .- Organizational structures
8. Creativity as a source of innovation
9. .- Introduction to Entrepreneurship
10. Crowdsourcing and Community platforms
11. .- Funding innovation

12. Strategic direction of innovation
13. Protection and commercialization of knowledge
14. .- Innovation and entrepreneurship management application to a case study

6. Schedule

6.1. Subject schedule*

Week	Face-to-face classroom activities	Face-to-face laboratory activities	Distant / On-line	Assessment activities
1			Introduction to Basics course Duration: 02:00	
2			Concepts and types of innovation Duration: 02:00 Concepts and types of innovation Duration: 01:00 Concepts and types of innovation Duration: 01:00	
3			Innovation context and processes (focused on the ICT sector) Duration: 01:00 Innovation context and processes (focused on the ICT sector) Duration: 01:00 Innovation context and processes (focused on the ICT sector) Duration: 01:00 Innovation context and processes (focused on the ICT sector) Duration: 00:45	Quiz 1 Continuous assessment Presential Duration: 00:15
4			The added value of (open) cooperation in innovation Duration: 02:00 The added value of (open) cooperation in innovation Duration: 01:00 The added value of (open) cooperation in innovation Duration: 01:00	

5			<p>Innovation ecosystems Duration: 02:00</p> <p>Innovation ecosystems Duration: 01:00</p> <p>Innovation ecosystems Duration: 01:00</p> <p>Innovation ecosystems Duration: 01:00</p>	
6			<p>Digital transformation Duration: 02:00</p> <p>Digital transformation Duration: 01:00</p> <p>Digital transformation Duration: 00:45</p>	<p>Quiz 2</p> <p>Continuous assessment Presential Duration: 00:15</p>
7			<p>Organizational structures Duration: 01:00</p> <p>Organizational structures Duration: 01:00</p> <p>Organizational structures Duration: 01:00</p> <p>Organizational structures Duration: 01:00</p>	
8			<p>Creativity as a source of innovation Duration: 02:00</p> <p>Creativity as a source of innovation Duration: 01:00</p> <p>Creativity as a source of innovation Duration: 01:00</p>	
9			<p>Introduction to Entrepreneurship Duration: 01:00</p> <p>Introduction to Entrepreneurship Duration: 01:00</p> <p>Introduction to Entrepreneurship Duration: 01:00</p>	

			Introduction to Entrepreneurship Duration: 01:00	
10			Crowdsourcing and Community platforms Duration: 02:00 Crowdsourcing and Community platforms Duration: 02:00 Crowdsourcing and Community platforms Duration: 00:45	Quiz 3 Continuous assessment Presential Duration: 00:15
11			Funding innovation Duration: 01:00 Funding innovation Duration: 01:00 Funding innovation Duration: 01:00 Funding innovation Duration: 01:00	
12			Strategic direction of innovation Duration: 02:00 Strategic direction of innovation Duration: 01:00 Strategic direction of innovation Duration: 01:00	
13			Protection and commercialization of knowledge Duration: 01:00 Protection and commercialization of knowledge Duration: 01:00 Protection and commercialization of knowledge Duration: 01:00 Protection and commercialization of knowledge	

			Duration: 01:00	
14				Innovation and entrepreneurship management application to a case study Continuous assessment Presential Duration: 04:00
15				Final exam Continuous assessment Presential Duration: 02:00
16				
17				

Depending on the programme study plan, total values will be calculated according to the ECTS credit unit as 26/27 hours of student face-to-face contact and independent study time.

* The schedule is based on an a priori planning of the subject; it might be modified during the academic year, especially considering the COVID19 evolution.

7. Activities and assessment criteria

7.1. Assessment activities

7.1.1. Continuous assessment

Week	Description	Modality	Type	Duration	Weight	Minimum grade	Evaluated skills
3	Quiz 1		Face-to-face	00:15	5%	5 / 10	CB07 CB08 CG07 CG08 CG09 CE-EIT01 CE-EIT02 CG03
6	Quiz 2		Face-to-face	00:15	5%	5 / 10	CB07 CB08 CG07 CG08 CG09 CE-EIT01 CE-EIT02 CG03
10	Quiz 3		Face-to-face	00:15	5%	5 / 10	CG07 CG08 CG09 CE-EIT01 CB07 CB08 CE-EIT02 CG03
14	Innovation and entrepreneurship management application to a case study		Face-to-face	04:00	60%	5 / 10	CB07 CB08 CG07 CG08 CG09 CE-EIT01 CE-EIT02 CG03
15	Final exam		Face-to-face	02:00	25%	5 / 10	CB07 CB08 CG07 CG08 CG09 CE-EIT01 CE-EIT02

7.1.2. Final examination

No se ha definido la evaluación sólo por prueba final.

7.1.3. Referred (re-sit) examination

No se ha definido la evaluación extraordinaria.

7.2. Assessment criteria

The evaluation of the students will be based on three main sources:

? Continuous evaluation (15%): activities during lectures (classroom interactivity, quizzes, etc.)

? Group work (60%): development and final presentation of the group work

? Final exam (25%)

8. Teaching resources

8.1. Teaching resources for the subject

Name	Type	Notes
. James M. Utterback (1994). Mastering the dynamics of innovation. Harvard Business School Press.	Bibliography	
. Alexander Osterwalder & Yves Pigneur (2010). Business model generation. John Wiley & Sons. New Jersey 2010.	Bibliography	

. Eric Ries (2011): The Lean Startup. Crown Business New York. 2011	Bibliography	
W. Chan Kim and Renée Mauborgne (2015). Blue Ocean Strategy. Harvard Business Review Press. 2015. ISBN: 978-1-62527-449-6	Bibliography	
Henry Chesbrough. Open Innovation: The New Imperative for Creating and Profiting from Technology (HBS Press, 2003).	Bibliography	
Henry Chesbrough (2011). Open Services Innovation. Rethinking your business to grow and compete in a new era. Ed. Jossey-Bass. 2011. ISBN 978-0-470-90574-6	Bibliography	
Geoffrey A. Moore, ?Crossing the Chasm? 1991, revised 1999 and 2014	Bibliography	
Richard Foster & Sarah Kaplan, ?Creative Destruction: Why Companies that Are Built to Last Underperform the Market?, 2001	Bibliography	
Henry Chesbrough. Open Innovation: The New Imperative for Creating and Profiting from Technology, 2003	Bibliography	
Eric von Hippel, Open User Innovation, 2013	Bibliography	
Steve Blank, ?The Four Steps to the Epiphany? 2005, 2nd Ed. 2013	Bibliography	
Steve Blank & Bob Dorf, ?The Startup Owner's Manual?, 2012	Bibliography	
Madeleine I. G. Daepp, Marcus J. Hamilton, Geoffrey B. West, Luis M. A. Bettencourt, ?The Mortality of Companies.? 2015	Bibliography	

Simon Sinek, ¿How great leaders inspire action?, TED Talk, https://www.ted.com/talks/simon_sinek_how_great_leaders_inspire_action	Bibliography	
Brynjolfsson, Erik, and Andrew McAfee. ¿Race Against the Machine? Lexington, Mass: Digital Frontier Press, 2012.	Bibliography	
Gordon, Robert J. ¿Is U.S. Economic Growth Over? Faltering Innovation Confronts the Six Headwinds?, NBER Working Papers 2012.	Bibliography	
Chad Syverson, ¿Challenges to Mis measurement Explanations for the U.S. Productivity Slowdown? NBER WorkingPapers2016	Bibliography	
Cowen, Tyler, ¿The Great Stagnation: How America Ate Allthe Low-Hanging Fruit of Modern History, GotSickand Will (Eventually) Feel Better. New York: Dutton Adult, 2011.	Bibliography	
Course slides and material	Bibliography	Available in Moodle platform of EIT Digital during the course.

9. Adendas

- Coordinador de la asignatura: Alberto Tejero