

205062 - Designing Innovative Products and Business

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering
 Teaching unit: 758 - EPC - Department of Project and Construction Engineering
 Academic year: 2019
 Degree: MASTER'S DEGREE IN SPACE AND AERONAUTICAL ENGINEERING (Syllabus 2016). (Teaching unit Optional)
 MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2013). (Teaching unit Optional)
 MASTER'S DEGREE IN AERONAUTICAL ENGINEERING (Syllabus 2014). (Teaching unit Optional)
 ECTS credits: 3 Teaching languages: English

Teaching staff

Coordinator: Gonçalves Ageitos, Maria
 Others: Cusido Roura, Jordi

Opening hours

Timetable: Flexible (by appointment)

Teaching methodology

The teaching methodology will include: Lectures, invited lectures, case based learning and project based learning. The students will participate in groups on a innovation project working to develop a disruptive business proposal that will be implemented in six weeks.

Learning objectives of the subject

Study load

Total learning time: 75h	Hours large group:	27h	36.00%
	Hours medium group:	0h	0.00%
	Hours small group:	0h	0.00%
	Guided activities:	0h	0.00%
	Self study:	48h	64.00%

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Content

<p>Module 1: Basic Disruptive Innovation Methodologies</p>	<p>Learning time: 11h Theory classes: 3h Self study : 8h</p>
<p>Description: Definition of disruptive innovation. Introduction to the main innovation methodologies: open innovation, blue ocean strategy, design thinking and lean start-up.</p> <p>Related activities: Lectures.</p>	
<p>Module 2: Design Thinking, Customer Discovery</p>	<p>Learning time: 24h Theory classes: 9h Self study : 15h</p>
<p>Description: Designing for empathy is the basis of Design thinking. Design Thinking is one of the leading methodologies to find the product market fit. Currently design thinking is used by IDEO, Apple, P&G, leading start-ups and corporations to design disruptive products</p> <p>Related activities: Lectures, class exercises (the gift giving experience) and home exercises (group)</p>	
<p>Module 3: Value Proposition Design</p>	<p>Learning time: 16h Theory classes: 6h Self study : 10h</p>
<p>Description: Proposed on 2015 by Alexander Osterwalder the value proposition design is an awesome methodology to validate customer needs, pains and gains.</p> <p>Related activities: Lectures and home exercises.</p>	



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Module 4: Lean Start-Up, Product and Business Validation	Learning time: 24h Theory classes: 9h Self study : 15h
Description: Introduced by Eric Ries Lean Start-Up is one of the main methodologies to validate our product design and business model.	
Related activities: Lectures, class exercises (the Lean Canvas) and home exercises (group).	

Qualification system

The evaluation will be based on:

- * Class Participation and exercises (30%)
- * Home exercises (30%)
- * Project Result and presentation (40%)

Bibliography