



Course guides

205062 - 205062 - Designing Innovative Products and Business

Last modified: 29/05/2020

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 758 - EPC - Department of Project and Construction Engineering.

Degree: MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2013). (Optional subject).
MASTER'S DEGREE IN AERONAUTICAL ENGINEERING (Syllabus 2014). (Optional subject).
MASTER'S DEGREE IN SPACE AND AERONAUTICAL ENGINEERING (Syllabus 2016). (Optional subject).

Academic year: 2020 **ECTS Credits:** 3.0 **Languages:** English

LECTURER

Coordinating lecturer: Gonçalves Ageitos, Maria

Others: Cusido Roura, Jordi

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

Type	Hours	Percentage
Hours large group	27,0	36.00
Self study	48,0	64.00

Total learning time: 75 h

CONTENTS

Module 1: Basic Disruptive Innovation Methodologies

Description:

Definition of disruptive innovation. Introduction to the main innovation methodologies: open innovation, blue ocean strategy, design thinking and lean start-up.

Related activities:

Lectures.

Full-or-part-time: 11h

Theory classes: 3h

Self study : 8h



Module 2: Design Thinking, Customer Discovery

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

Related activities:

Lectures, class exercises (the gift giving experience) and home exercises (group)

Full-or-part-time: 24h

Theory classes: 9h

Self study : 15h

Module 3: Value Proposition Design

Description:

Proposed on 2015 by Alexander Osterwalder the value proposition design is an awesome methodology to validate customer needs, pains and gains.

Related activities:

Lectures and home exercises.

Full-or-part-time: 16h

Theory classes: 6h

Self study : 10h

Module 4: Lean Start-Up, Product and Business Validation

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).

Full-or-part-time: 24h

Theory classes: 9h

Self study : 15h

GRADING SYSTEM

The evaluation will be based on:

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