

## 62953 - Design for additive manufacturing

### Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura
Degree	562 - Master's in Product Development Engineering
ECTS	4.5
Course	1
Period	Second semester
Subject Type	Optional
Module	---

### 1.Basic info

#### 1.1.Recommendations to take this course

#### 1.2.Activities and key dates for the course

### 2.Initiation

#### 2.1.Learning outcomes that define the subject

#### 2.2.Introduction

### 3.Context and competences

#### 3.1.Goals

#### 3.2.Context and meaning of the subject in the degree

#### 3.3.Competences

#### 3.4.Importance of learning outcomes

### 4.Evaluation

### 5.Activities and resources

#### 5.1.General methodological presentation

#### 5.2.Learning activities

#### 5.3.Program

The program that is offered to student includes the following activities:

\* Introduction to additive fabrication. History, classification and workflow phases.

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- \* Additive manufacturing technologies. Strengths and weaknesses. Features final piece.
- \* Design for Additive Manufacturing
- \* Tools processing point clouds. reverse engineering, exact surfaces, parametric surfaces and straightforward design.
- \* Specific tools for manufacturing preparation, file repair and analysis.
- \* Optimal design tools in additive manufacturing. Topological design and lattice structures
- \* Use and maintenance of professional and personal equipment in additive manufacturing
- \* Sectors of application and application tools dedicated by sector.

And the following practical exercises:

Analysis work technologies.

Making one or more design projects by sector through dedicated tools for treatment and making final result.

### 5.4.Planning and scheduling

### 5.5.Bibliography and recommended resources