

## 29705 - Mathematics II

### Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura
Degree	434 - Bachelor's Degree in Mechanical Engineering
ECTS	6.0
Course	1
Period	Half-yearly
Subject Type	Basic Education
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

#### Section 1. Linear Algebra

1. Matrices, determinants and ranks.
2. Linear systems and numerical methods.

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3. Vector spaces.
4. Linear applications.
5. Diagonalization.

### Section 2. Geometry

1. Euclidean geometry. Inner product. Orthogonalization and applications.
2. Differential geometry: curves, Frenet frame, representation of plane curves.

### 5.4.Planning and scheduling

### 5.5.Bibliography and recomended resources