27000 - Linear algebra

Información del Plan Docente

Academic Year	2016/17
Academic center	100 - Facultad de Ciencias
Degree	453 - Degree in Mathematics
ECTS	13.5
Course	1
Period	Annual
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

The general teaching methodology designed for this class is based on the following:

- Lectures

- Problem sessions

- Office hours

- Students' individual work

5.2.Learning activities

In addition to the above activities, throughout the course the students are provided with four sets of exercises to be solved and expounded to one of the teachers during office hours.

5.3.Program

1. Vector Spaces

2. Linear Mappings and Matrices

3. Rank

4. Integer Matrices and Polynomial Matrices

5. Linear, Bilinear and Hermitian Forms

6. Eigenvectors and Eigenvalues

7. Theory of an Endomorphism

8. Euclidean and Unitary Spaces

9. Endomorphisms of Euclidean and Unitary Spaces

10. Applications to Geometry

5.4.Planning and scheduling

See the academic calendar of the *Universidad de Zaragoza* and the class schedules published on the *Facultad de Ciencias* webpage. The exact time and place of the examinations will be announced in class and posted on a bulletin board and on the online platform (*ADD*).

5.5.Bibliography and recomended resources

Notes on the theoretical part of the lessons will appear in the *ADD* before they are given. A number of problems are supplied as well.