

**Linear algebra**

Code: 100088  
ECTS Credits: 12

Degree	Type	Year	Semester
2500149 Mathematics	FB	1	A

## Errata

Changes in the teaching staff of the subject:

- The teachers leave: Laia Saumell, Francesc Xavier Xarles Ribas and Albert Ruíz Cirera
- The new teaching team of the subject is: Francesc Mañosas Capellades, Marc Masdeu, Ferran Cedó Giné, Francesc Bars Cortina and Guillermo Carrión Santiago.

## Contact

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## Use of languages

Principal working language: catalan (cat)  
Some groups entirely in English: No  
Some groups entirely in Catalan: Yes  
Some groups entirely in Spanish: No

## Teachers

Francesc Mañosas Capellades  
Laia Saumell Ariño  
Francesc Xavier Xarles Ribas  
Albert Ruíz Cirera  
Joaquim Roe Vellve  
Marc Masdeu Sabate

## Prerequisites

Even though the course is mostly self-contained, every student should be familiar with the solution of systems of linear equations, basic arithmetic of numbers and polynomials, and some ability with manipulation of symbolic algebraic expressions.

## Objectives and Contextualisation

The goals are twofold: to get basic mathematic training, and skills and knowledge in Linear Algebra. The student should be able to understand and use correctly mathematical language, grasp the need of proofs, and develop a critical eye for mathematical claims. The tools and concepts of Linear Algebra studied in the course are used not just in all areas of Mathematics but also in most sciences and technological studies.

## **Content**

**I. Systems of linear equations**

**II. Vector spaces**

**III. Linear maps**

**IV. Classification of endomorphisms**

**V. Symmetric bilinear forms**