

**Complementary Disciplinary Training in  
Mathematics**

Code: 45453  
ECTS Credits: 10

**2024/2025**

Degree	Type	Year
3500318 Teacher Training for Secondary Schools, Vocational Training and Language Centres	OB	1

## Errata

Update of the regular teaching staff at the beginning of the academic year.

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## Teaching groups languages

You can view this information at the [end](#) of this document.

## Prerequisites

There are no prerequisites

## Objectives and Contextualisation

This module aims to provide the most relevant mathematical complements to teach mathematics in secondary sc

1. Key Concepts and Problem Solving (3 ECTS). The aim of this blog is t
2. Key Mathematics Topics from a Historical Perspective (4 ECTS). Teac
3. Modeling (3 ECTS). Mathematical modeling is an important part of the

## Learning Outcomes

1. CA03 (Competence) To behave in a committed, respectful and ethical manner with society, students, the teaching profession, the educational community and the educational institution, within the framework of the teaching profession's code of conduct.
2. CA09 (Competence) To build a mathematical identity supported by professional development and a commitment to education that contributes to the development of a sustainable, equal, diverse and fair society that respects human rights.
3. CA10 (Competence) To apply disciplinary and curricular content from the perspective of literacy and education for all.
4. CA11 (Competence) To work as a team in a cooperative manner to co-create joint proposals, designs and activities, within the field of teaching in mathematics.
5. KA06 (Knowledge) To recognise the basic aspects of the mathematics curriculum and the personal and didactic knowledge of mathematics required to plan learning situations and classroom management and assessment strategies in the field of mathematics.
6. SA05 (Skill) To use evidence to analyse teaching actions in the mathematics classroom with a view to enhancing the processes and outcomes of learning mathematics.
7. SA06 (Skill) To demonstrate digital competence as a teacher and support students as they use digital tools to learn mathematics.
8. SA07 (Skill) To integrate a humanist vision that incorporates mathematical modelling and scientific, social and artistic elements to interpret reality and its relationship with mathematics.

## Content

Key concepts and problem solving (3 credits)

Key math topics from a historical perspective (4 credits)

## Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Oral presentations	30	1.2	
Practical cases	30	1.2	
Type: Supervised			
Analysis of modeling situations	30	1.2	
Type: Autonomous			
Personal study	50	2	
Proposed activities	60	2.4	

All face-to-face sessions will be with the whole class group. However, as indicated in the methodology, there will

The methodology will include the following types of activities:

- Teacher exhibition.
  - Use of the virtual campus. Discussion forums.
  - Cooperative work.
  - Student exhibitions.
  - Personal work of students.
  - Case study and practical work in the classroom.
  - Mechanisms of linking the theory and work done with the sessions of th
- The proposed teaching methodology and assessment may undergo som

"The proposed methodology involves a face-to-face development of the subject. If it were necessary to move to :

it would be done by videoconference (through teams) and the practical part would be done in person, but dividin

If it were necessary to return to a confinement everything would be done through teams and the virtual campus.

In any case it would always be synchronously according to the timeline of the subject

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

## Assessment

### Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Mathematics history group work	40%	20	0.8	CA03, CA09, CA11, KA06, SA05, SA06
Practical modeling work	30%	15	0.6	CA03, CA09, CA10, CA11, KA06, SA05, SA06, SA07
Practical problem solving work	30%	15	0.6	CA03, CA09, CA10, CA11, KA06, SA05, SA06

The following will be required to be entitled to the final assessment:

Compulsory attendance at a minimum of 80% of class sessions.

The delivery of all the practices and exercises of evaluation within the inc

The set of assessment activities will be as follows:

Key concepts and problem solving (30% of the module)

The evaluation will consist of a final work (which will have a weight of 50%

Mathematical Modeling (30% of the module)

50% of the evaluation will consist of a final work that will be done prefera

Key mathematics topics from a historical perspective (40% of the module)

The evaluation of this part will consist of individual work with a weight of .

The works, for any of the groups, must be delivered within the deadlines

The final grade is the result of the operation:  $0.3 \times \text{Note of key concepts} +$

### SINGLE ASSESSMENT

Students who opt for the single assessment must follow the development of the subject, attending class regularly and with the same attendance conditions as continuous assessment students.

They will submit all the assessment activities on a single date at the end of the session and will be required to pass a validation test for each of the activities.

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## Software

A specific program is not contemplated. Each teacher will indicate, when necessary, the free software that will be used.

## Language list

Information on the teaching languages can be checked on the CONTENTS section of the guide.