

## SUBJECT TEACHING GUIDE

### 943 - Recent and Historical Development in Mathematics and School Knowledge

#### Master's Degree in Secondary Education Teacher Training

Academic year 2024-2025

1. IDENTIFYING DATA					
Degree	Master's Degree in Secondary Education Teacher Training			Type and Year	Optional. Year 1
Faculty	School of Teacher Training				
Discipline	Subject Area: Complements for Disciplinary Training Specific Module in the Speciality of Mathematics				
Course unit title and code	943 - Recent and Historical Development in Mathematics and School Knowledge				
Number of ECTS credits allocated	4,5	Term	Semester based (2)		
Web	<a href="http://moodle.unican.es">http://moodle.unican.es</a>				
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. MATEMATICAS, ESTADISTICA Y COMPUTACION				
Name of lecturer	DANIEL SADORNIL RENEDO				
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Other lecturers	RAUL FERNANDEZ COBOS				

3.1 LEARNING OUTCOMES
- Write mathematical texts correctly; statements, demonstrations and exercises.
- Know the origin of some mathematical concepts.
- Acquire specific knowledge of mathematical reasoning.
- Know various mathematical areas.

**4. OBJECTIVES**

- Recognize the need for rigor and precise language for the understanding, acquisition and teaching of mathematics.
- Learn about the fundamental aspects of the History of Mathematics which are useful for the practice of teaching.
- Placing Mathematics between other subjects and its use in the everyday life.
- Learn about the current fields of mathematical development.

**6. SUBJECT PROGRAM**

CONTENTS

1	Mathematical language and rigour.
2	Historical approach to curricular mathematics. 1.- Algebra. 2.- Geometry. 3.- Analysis. 4.- Statistics and Probability.
3	Mathematical recreations to make you think. Frontiers, mathematics and reality.
4	Mathematicians in History, its influence in the classroom.

**7. ASSESSMENT METHODS AND CRITERIA**

Description	Type	Final Eval.	Reassessn	%
Oral presentation of a work done by a small group of students.	Work	No	Yes	50,00
Exercises, questions and mathematical tasks.	Others	No	Yes	40,00
Active participation in the sessions	Others	No	Yes	10,00
<b>TOTAL</b>				<b>100,00</b>

Observations

The assessment will be done in the following way:  
For each lesson, it will be proposed some questions and exercises, to be done individually or in a small group, to reinforce the issues worked in the class.  
In addition, there will be to do a work in small groups, which will have to be presented, about a mathematical topic that will include historic aspects. This activity will not be retrievable.

If some student do not pass the subject doing these activities, he/she can do a wrote exam of 2 hours, about the contents and the tasks proposed.

To pass the course, the grade obtained must be equal to or greater than five points out of ten.

If a student does not attend class regularly and does not have partial enrollment, the evaluation will be the same as that of their classmates but activities will be carried out individually.

Observations for part-time students

The evaluation procedure for part-time students who do not attend class regularly will consist of other exercises and works corresponding to the contents with extra reading that this student will have to do in order to obtain the same grade as the students attend class. Likewise, the realization of the group activities will be carried out, in this case, individually.  
Those of these who come to class can benefit from the same evaluation as all students.

**8. BIBLIOGRAPHY AND TEACHING MATERIALS**

## BASIC

Se facilitarán textos y direcciones web durante el desarrollo de la asignatura. Y también bibliográfica específica para la realización de los ejercicios y trabajos.