SUBJECT TEACHING GUIDE

G558 - Teaching Arithmetic

Double Degree in Teaching in Early Childhood Education and Primary Education
First Degree in Primary Education Teaching

Academic year 2025-2026

1. IDENTIFYING DATA					
Degree	Double Degree in Teaching in Early Childhood Education and Primary Education First Degree in Primary Education Teaching		Type and Year	Compulsory. Year 2 Compulsory. Year 2	
Faculty	School of Teacher Training				
Discipline	Subject Area: Teaching and Learning of Mathematics Module: Training in Teaching and the Discipline				
Course unit title and code	G558 - Teaching Arithmetic				
Number of ECTS credits allocated	6	Term	Semester based (1)		
Knowledge Field	Education sciences				
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. MATEMATICAS, ESTADISTICA Y COMPUTACION
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Other lecturers	STEVEN JOHAN MARIA VAN VAERENBERGH IRENE POLO BLANCO OSCAR ARCERA LOPEZ

4. OBJECTIVES
Know and understand the curricular regulations for the teaching of numerical contents in Primary Education.
Analyze how primary education students learn numerical concepts.
Know and use didactical resources to teach numerical concepts.
Develop the ability to select and design mathematical tasks to teach numerical concepts, justifying the decisions made.
Know and use methodologies for teaching numerical contents for students with special needs in mathematics.

6. SUBJECT PROGRAM	
	CONTENTS
1	LOMLOE mathematics curriculum. Number, algebraic and stochastic senses.
2	Special needs in mathematics education.
3	Learning and teaching natural numbers.
4	Learning and teaching arithmetic operations with natural numbers.
5	Teaching fractions and decimal numbers.
6	Teaching statistics and probability

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
1. Ordinary exam	Written exam	Yes	Yes	60,00
2. Group work on special needs in mathematics	Work	No	Yes	30,00
Approximately four activities will be evaluated throughout the semester. Each activity will normally be resolved during one hour of class time.	Work	No	Yes	10,00
TOTAL				100,00

Observations

1. Regular exam session:
The final mark will be obtained by adding the exam score (maximum 6 points), the group project score (maximum 3 points), and the classroom assessment score (maximum 1 point). It is required to obtain at least 4 out of 10 on the exam for the rest of the scores to be considered.

The exam (6 points) in the regular exam session will not include questions related to the topics covered in the group project.

2. Resit exam session:
One of the following two options may be chosen:

a) Keep the continuous assessment score (comprising the group project and the classroom assessment scores) and resit the exam (maximum 6 points). This exam will not include questions related to the topic covered in the group project.

b) Waive the continuous assessment score (comprising the group project and the classroom assessment scores) and take a single exam (máximum 10 points), which may include questions related to any topic of the course.

LINGUISTIC COMPETENCE
University students are expected to have the necessary linguistic competence to effectively communicate both orally and in writing, including proper spelling, grammar, vocabulary, pragmatics, and discourse coherence. Demonstrating these skills in written assignments and exams is an essential requirement for passing the course.

CITATION GUIDELINES
The Faculty Board has approved the use of APA guidelines as the standard citation format for all academic work within the Faculty of Education. While there are several editions of these guidelines, we recommend consulting the BUC summary of the most recent edition.
PLAGIARISM
Any form of academic dishonesty, including plagiarism, will be evaluated in accordance with Article 32 of the UC Assessment Process Regulations.
USE OF ARTIFICIAL INTELLIGENCE (AI)
When the use of Artificial Intelligence (AI) is permitted in an assessed task, teaching staff will define the scope and limitations of its use. Students may also be asked to provide additional information—both oral and written—about the development of the task. Whenever AI is used, students must clearly state how and for what purpose it was employed.
Unethical or fraudulent use of AI will be subject to the same regulations on academic misconduct as outlined in Articles 31 and 32 of the UC Assessment Process Regulations, and may result in disciplinary action.

Observations for part-time students

Part-time Students – Assessment Options
Part-time students may choose one of the following two assessment options during the regular exam session:
a) The same assessment method as full-time students.
b) A single exam (máximum 10 points), covering questions from any topic of the course.
Since the first option includes the group project, part-time students must make their choice within the first two weeks of the course. Once selected, the option cannot be changed.
During the resit exam session, part-time students will have the same assessment options as full-time students.

8. BIBLIOGRAPHY AND TEACHING MATERIALS
BASIC
Alsina, A. (2019). Itinerarios didácticos para la enseñanza de las matemáticas (6-12 años). Editorial Gráo. Barcelona.
Albarracín, L., Badillo, E., Giménez, J., Venegas, Y., Vilella, X. (2018). Aprender a enseñar matemáticas en la educación primaria. Madrid: Editorial Síntesis.
Flores P., Rico L. (2015). Enseñanza y aprendizaje de las matemáticas en Educación Primaria. Ediciones Pirámide.
Segovia, A., Rico, L. (Coords.) (2011). Matemáticas para maestros de Educación Primaria. Ediciones Pirámide.
Diaz Godino, J. (2004). Didáctica de las matemáticas para maestros. http://www.ugr.es/local/jgodino
Chamorro, M.C. (Ed.) (2003). Didáctica de las Matemáticas. Pearson Educación: Madrid
Castro, E. (2001). Didáctica de la matemática en educación primaria. Síntesis: Madrid.
Ortiz Vallejo, M. (2011). Cálculo Mental en el Aula. CCS Editorial.
Pérez, M. T. G., & Povedano, N. A. (2020). Del número al sentido numérico y de las cuentas al cálculo táctico: Fundamentos, recursos y actividades para iniciar el aprendizaje. Ediciones Octaedro.
Martínez-Montero, J. y Sánchez, C. (2013). Resolución de Problemas y Método ABN. Madrid: Wolters Kluwer Educación.
Bargagliotti, B. (Ed.) (2020). Pre-K–12 guidelines for assessment and instruction in statistics education II (GAISE II). American Statistical Association.
Guzmán Domínguez, M. (2022). Matemáticas esquemáticas. Un método alternativo nacido de la experiencia. Editorial Mares de Libros.