

SUBJECT TEACHING GUIDE

G559 - Teaching Geometry

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

Academic year 2021-2022

1. IDENTIFYING DATA					
Degree	Double Degree in Teaching in Early Childhood Education and Primary Education			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	G559 - Teaching Geometry				
Number of ECTS credits allocated	6	Term	Semester based (2)		
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	CECILIA VALERO REVENGA RAUL FERNANDEZ COBOS IGNACIO GONZALEZ RUIZ MAITANE PEREZ ISTURIZ

3.1 LEARNING OUTCOMES

- Getting to know the learning and teaching processes corresponding to geometry. Analyzing and designing didactic sequences in geometry.

4. OBJECTIVES

To gain basic mathematical competences (geometric, spacial relationships, etc.). To analyze, reason and communicate didactic proposals related to geometry.

6. COURSE ORGANIZATION

CONTENTS

1	Introduction. Professional context. Teacher knowledge
2	Cognitive models in geometry learning
3	Geometric shapes. Pedagogical knowledge and content knowledge
4	Geometric magnitudes: length, area and volume
5	Geometric transformations. Pedagogical knowledge and content knowledge

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Activities using Geogebra software	Activity evaluation with Virtual Media	No	No	20,00
Continuous assessment tests	Activity evaluation with Virtual Media	No	Yes	30,00
Written exam	Written exam	Yes	Yes	50,00
TOTAL				100,00

Observations

FINAL GRADE

The final grade will be obtained by adding the grade from the GeoGebra activities (maximum 2 points), the grade from the continuous assessment tests (maximum 3 points), and the grade from the written exam (maximum 5 points). In order to pass the course it will be necessary to obtain at least 4 out of 10 points in the written exam.

Students who are not enrolled in the course for the first time will be treated in the same way as students enrolled part-time (see the corresponding remarks).

FINAL EXAM

The final exam will consist of two parts:

- Part 1: Written exam.
- Part 2: Recovery of continuous assessment tests.

Both parts of the exam will take place on the same day. Students who participate in the second part will need to bring a laptop to take this test.

RECOVERY TESTS EVALUATION

Students who have less than a 5 out of 10 as a total mark in the continuous assessment tests during the course will be able to make up these tests during the second part of the final exam. In this case, the mark of the continuous assessment tests obtained previously will not be taken into account to calculate the final grade.

Observations for part-time students

Part-time students that do not attend class will be able to take the two parts of the final exam, which in this case will have the following weights:

- Part 1: Written exam. 65% of the final grade.
- Part 2: Recovery of continuous assessment tests. 35% of the final grade.

For the marks of both parts to be added, it will be necessary to obtain at least a 4 out of 10 in Part 1.

It will be understood that part-time students who hand in any of the three GeoGebra practices, scheduled during the course, follow the usual evaluation system. In such circumstances, the evaluation criteria set out in this point will not be applied to these students.

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

- Martínez, A. M. y Juan, F. R. (Coord.) (1989). Una metodología activa y lúdica para la enseñanza de la geometría. Madrid: Síntesis.
- Alsina, C., Burgués, C. y Fortuny, J. (1987). Invitación a la didáctica de la geometría. Madrid: Síntesis.
- Castro, E. (2001). Didáctica de la matemática en la Educación Primaria. Síntesis Madrid.
- Godino, J. D. y Ruiz, F. (2003). Geometría y su didáctica para maestros. Departamento de Didáctica de las Matemáticas. Universidad de Granada. ISBN: 84-932510-1-1.(Recuperable en <http://www.ugr.es/local/godino/>).