

SUBJECT TEACHING GUIDE

G559 - Teaching Geometry

Degree in Primary Education Teaching

Academic year 2019-2020

1. IDENTIFYING DATA					
Degree	Degree in Primary Education Teaching			Type and Year	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				
Name of lecturer	IRENE POLO BLANCO				
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Office	Facultad de Ciencias. Planta: + 0. DESPACHO PROFESORES (0057)				
Other lecturers	CECILIA VALERO REVENGA STEVEN JOHAN MARIA VAN VAERENBERGH 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 outside classroom hours	Others	No	Yes	25,00
Activities using Geogebra software	Activity evaluation with Virtual Media	No	No	15,00
Exam	Written exam	Yes	Yes	60,00
TOTAL				100,00
Observations				
<p>There will be three geogebra practices during school hours. Class attendance on the day in which each practice is performed will be mandatory to consider its qualification. Students will be notified in advance of the dates through email. The approximate dates will be:</p> <p>1st practice: Last week of March 2nd practice: 2nd week of April 3rd practice: 2nd week of May.</p> <p>The final grade will be obtained by adding: the points of the final exam (6 points maximum), the points of the working class activities (2.5 points max), and the points of the geogebra activities (1.5 points max). In order to add the points of the working class activities and of the geogebra activities, it will be required to have obtained at least 4 points (over 10) in the final exam.</p>				
Observations for part-time students				
Part-time students have the option of taking only one final exam that will cover all contents of the course.				

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC
<p>Martínez, A. M. y Juan, F. R. (Coord.) (1989). Una metodología activa y lúdica para la enseñanza de la geometría. Madrid: Síntesis.</p> <p>Alsina, C., Burgués, C. y Fortuny, J. (1987). Invitación a la didáctica de la geometría. Madrid: Síntesis.</p> <p>Castro, E. (2001). Didáctica de la matemática en la Educación Primaria. Síntesis Madrid.</p> <p>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/).</p>