UNIVERSIDAD DE CASTILLA - LA MANCHA
GUÍA DOCENTE

1. General information

Course: TEACHING GEOMETRY AND MEASUREMENT
Type: CORE COURSE
Degree: 395 - UNDERGRADUATE DEGREE IN PRIMARY EDUCATION (TO)
Center: 104 - FACULTY OF EDUCATION OF TOLEDO
Year: 2
Main language: Spanish
Use of additional languages:
Web site:

Code: 46315
ECTS credits: 9
Academic year: 2021-22
Group(s): 40 41
Duration: AN
Second language: English
English Friendly: Y
Bilingual: N

Lecturer: **RAQUEL FERNANDEZ CEZAR** - Group(s): **41**

Building/Office	Department	Phone number	Email	Office hours
Fac. De Educación, despacho 1.35 Edificio Sabatini	MATEMÁTICAS	926051807	raquel.fcezar@uclm.es	

Lecturer: **ALFONSO JIMÉNEZ ALCÁZAR** - Group(s): **41**

Building/Office	Department	Phone number	Email	Office hours
	MATEMÁTICAS		Alfonso.JAlcazar@uclm.es	

2. Pre-Requisites

Not established

3. Justification in the curriculum, relation to other subjects and to the profession

Not established

4. Degree competences achieved in this course

Course competences

Code	Description
1.2.2.II.01	Acquire basic mathematical competences (numeric, calculation, geometric, spatial representation, estimation and measurement, data organization and interpretation, etc.).
1.2.2.II.02	Know the Mathematics curriculum in Primary schools.
1.2.2.II.03	Analyse, figure out and communicate mathematical proposals.
1.2.2.II.04	Pose and solve problems related to daily life.
1.2.2.II.05	Value the relationship between mathematics and science as one of the foundations of scientific reasoning.
1.2.2.II.06	Develop and assess contents from the curriculum by using appropriate teaching resources and promote the corresponding competences in the students.
CB02	Apply their knowledge to their job or vocation in a professional manner and show that they have the competences to construct and justify arguments and solve problems within their subject area.
CG10	Reflect on classroom practice to allow innovation and improvement of the teaching practice. Acquire habits and skills for autonomous and cooperative learning and promote it among pupils.
CG11	Know and apply information and communication technology in the classroom. Select audiovisual information which contributes to learning, civic training and cultural richness.
CT03	Correct oral and written communication.
CT04	Moral obligation and professional ethics.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

Have knowledge of the new learning theories and the mathematical reasoning models and be able to design and assess activities according to those models.

Understand research about Primary school pupils' difficulties, misconceptions, concept images, etc. and be able to reflect on how these results may have influence on teaching.

Acquire evaluation skills both about mathematical knowledge and Primary school pupils' learning processes.

Have knowledge of the curricular aspects related both to mathematics and to the implementation of teaching sequences in the (real or simulated) Primary classroom.

Cope with diversity in the classroom.

Acquire mathematical knowledge broad enough to allow students to work confidently as teachers.

Show the ability to use software in school mathematics that promotes learning.

Know how to use the basic elements of the history of mathematics to promote learning on specific occasions.

Know how to use teaching materials and other resources to encourage learning.

6. Units / Contents

Unit 1:
Unit 2:

Unit 3:
Unit 4:
Unit 5:
Unit 6:

7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Writing of reports or projects [OFF-SITE]	Problem solving and exercises	CB02 CG10 CG11 CT03 CT04	0.6	15	Y	Y	
Class Attendance (theory) [ON-SITE]	Lectures	CB02 CG10 CG11 CT03 CT04	1.56	39	Y	N	
Project or Topic Presentations [ON-SITE]	Cooperative / Collaborative Learning	CG10 CG11 CT03	0.6	15	Y	N	
Writing of reports or projects [OFF-SITE]	Cooperative / Collaborative Learning	CB02 CG10 CG11 CT03 CT04	1.48	37	Y	Y	
Study and Exam Preparation [OFF-SITE]	Self-study		1.8	45	Y	Y	
Workshops or seminars [ON-SITE]	Problem solving and exercises		0.68	17	Y	N	
Progress test [ON-SITE]	Assessment tests		0.08	2	Y	Y	
Writing of reports or projects [OFF-SITE]	Self-study	CB02 CG10 CG11 CT03 CT04	2.12	53	Y	N	
Final test [ON-SITE]	Assessment tests		0.08	2	Y	Y	
Total:			**9**	**225**			
Total credits of in-class work: 3				**Total class time hours: 75**			
Total credits of out of class work: 6				**Total hours of out of class work: 150**			

As: Assessable training activity
Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System

Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Final test	35.00%	70.00%	
Progress Tests	35.00%	10.00%	
Oral presentations assessment	20.00%	20.00%	
Assessment of active participation	10.00%	0.00%	
Total:	**100.00%**	**100.00%**	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject , an ordinary and an extraordinary one (evaluating 100% of the competences).

9. Assignments, course calendar and important dates

Not related to the syllabus/contents	
Hours	**hours**

Unit 1 (de 6):	
Activities	**Hours**
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	2
Class Attendance (theory) [PRESENCIAL][Lectures]	6
Writing of reports or projects [AUTÓNOMA][Cooperative / Collaborative Learning]	5
Writing of reports or projects [AUTÓNOMA][Self-study]	3
Group 40:	
Initial date: 14-09-2021	**End date:**

Unit 2 (de 6):	
Activities	**Hours**
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	4
Class Attendance (theory) [PRESENCIAL][Lectures]	6
Writing of reports or projects [AUTÓNOMA][Cooperative / Collaborative Learning]	5
Study and Exam Preparation [AUTÓNOMA][Self-study]	2
Workshops or seminars [PRESENCIAL][Problem solving and exercises]	3
Writing of reports or projects [AUTÓNOMA][Self-study]	10

Unit 3 (de 6):	
Activities	**Hours**
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	3
Class Attendance (theory) [PRESENCIAL][Lectures]	10
Writing of reports or projects [AUTÓNOMA][Cooperative / Collaborative Learning]	15
Study and Exam Preparation [AUTÓNOMA][Self-study]	10
Workshops or seminars [PRESENCIAL][Problem solving and exercises]	5

Writing of reports or projects [AUTÓNOMA][Self-study]	10

Group 41:

Initial date:	**End date:** 22-12-2021

Unit 4 (de 6):

Activities	Hours
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	1
Class Attendance (theory) [PRESENCIAL][Lectures]	5
Writing of reports or projects [AUTÓNOMA][Cooperative / Collaborative Learning]	10
Study and Exam Preparation [AUTÓNOMA][Self-study]	9
Workshops or seminars [PRESENCIAL][Problem solving and exercises]	4
Progress test [PRESENCIAL][Assessment tests]	2
Writing of reports or projects [AUTÓNOMA][Self-study]	15

Group 40:

Initial date: 26-01-2022	**End date:**

Unit 5 (de 6):

Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	3
Project or Topic Presentations [PRESENCIAL][Cooperative / Collaborative Learning]	7
Writing of reports or projects [AUTÓNOMA][Cooperative / Collaborative Learning]	2
Study and Exam Preparation [AUTÓNOMA][Self-study]	5
Workshops or seminars [PRESENCIAL][Problem solving and exercises]	2
Writing of reports or projects [AUTÓNOMA][Self-study]	5

Unit 6 (de 6):

Activities	Hours
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	5
Class Attendance (theory) [PRESENCIAL][Lectures]	9
Project or Topic Presentations [PRESENCIAL][Cooperative / Collaborative Learning]	8
Study and Exam Preparation [AUTÓNOMA][Self-study]	19
Workshops or seminars [PRESENCIAL][Problem solving and exercises]	3
Writing of reports or projects [AUTÓNOMA][Self-study]	10
Final test [PRESENCIAL][Assessment tests]	2

Group 41:

Initial date:	**End date:** 19-05-2022

Global activity

Activities	hours
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	15
Class Attendance (theory) [PRESENCIAL][Lectures]	39
Project or Topic Presentations [PRESENCIAL][Cooperative / Collaborative Learning]	15
Writing of reports or projects [AUTÓNOMA][Cooperative / Collaborative Learning]	37
Study and Exam Preparation [AUTÓNOMA][Self-study]	45
Workshops or seminars [PRESENCIAL][Problem solving and exercises]	17
Writing of reports or projects [AUTÓNOMA][Self-study]	53
Progress test [PRESENCIAL][Assessment tests]	2
Final test [PRESENCIAL][Assessment tests]	2
Total horas:	225

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	City	ISBN	Year	Description
A. Alsina, coord.	Educación matemática y buenas prácticas. Infantil, primaria,	Graó		978-84-7827-695-0	2009	
Alsina, C.; Burgués, C. y Fortuny, J.M.	Invitación a la Didáctica de la Geometría.	Síntesis	Madrid		1987	
Chamorro, Carmen y Belmonte, Juan M	El problema de la medida, Didáctica de las Magnitudes lineales	Síntesis, S.A	Madrid		2000	
Díaz Godino, J. (dir.)	Matemáticas para maestros http://www.ugr.es/local/jgodino/edumat-maestros/					
Luis Rico y Alex Segovia, coords.	Matemáticas para maestros de Educación Primaria http://www.edicionespiramide.es/libro.php?id=2928254	Pirámide		978-84-368-2565-7	2011	
Norte Checa, Andres	Matemáticas y su didactica	Diego Marin librero editor			2007	
Ruiz Higueras, Luisa, Vecino Rubio, Francisco, Belmonte Gómez, Juan Miguel	Didáctica de las Matemáticas	Colección didáctica Infantil, PEARSON PRENTICE HALL, ESPAÑA			2008	