DETAILS OF THE SUBJECT

Title: MATEMÁTICAS
Code: 100815
Degree/Master: GRADO DE EDUCACIÓN PRIMARIA   **Year:** 1
Name of the module to which it belongs:
Field: MATEMÁTICAS
Character: OBLIGATORIA   **Duration:** SECOND TERM
ECTS Credits: 6   **Classroom hours:** 60
Face-to-face classroom percentage: 40%   **Non-contact hours:** 90
Online platform:

TEACHER INFORMATION

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REQUIREMENTS AND RECOMMENDATIONS

Prerequisites established in the study plan

None.

Recommendations

None specified.

SKILLS

CB1	Students have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study.
CB2	Students can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study.
CB3	Students have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues.
CB4	Students can communicate information, ideas, problems and solutions to specialist and non-specialist audiences.
CB5	Students have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.
CE1	Knowledge of the curricular areas of primary education, the interdisciplinary relationship between them, evaluation criteria and the body of knowledge on teaching methods regarding procedures.
CE3	Effectively address language learning situations in multicultural and multilingual contexts. Foment reading and the critical analysis of texts of various scientific domains and cultural content in the school curriculum domains
CE10	Reflect on classroom practices to innovate and improve teaching. Acquire habits and skills for independent and cooperative learning and foster them in students.
CM6.1	Acquire basic math skills (numerical, calculus, geometry, spatial representations, estimation and measurement, organisation and interpretation of information, etc.).
CM6.2	Knowledge of school mathematics curriculum
CM6.3	Analyse, reason and communicate mathematical proposals.
CM6.4	Identify and address problems related to everyday life.
CM6.5	Value the relationship between mathematics and science as one of the cornerstones of scientific thought
CM6.6	Develop and evaluate curriculur content through appropriate teaching resources and foster the appropriate competences in students.

OBJECTIVES

To know the official syllabus of Primary School Education Mathematics and the minimum teaching set.
To know the logical and conceptual models that take part when mathematising situations and contexts.
To know and establish the relationships and links between the basic mathematical facts, techniques and skills and conceptual schemes that appear in the official syllabus of Primary School Education Mathematics.
To know and master the mathematical contents that are given in primary education

CONTENT

1. Theoretical content

CHAPTER 1: USING AND APPLIYING MATHEMATICS

1.1 Mathematical understanding

1.2 What is mathematical modelling?

1.3 Problem Solving

4.4 Indirect measurement of magnitudes

CHAPTER 5: SHAPE AND SPACE

5.1 Fundamental elements of the plane and space: relations and properties

5.2 Plane figures. Classifications. Elements and properties

5.3 Perimeter and area of plane figures

5.4 3-D shapes. Classifications. Surface

5.4 Glossary of key terms introduced in this chapter

CHAPTER 6: STATISTICS

6.1 Graphical representations of data

6.2 Misleading graphs and statistics

6.3 Measures of central tendency and dispersion

6.4 Probability and counting techniques

6.5 Glossary of key terms introduced in this chapter

2. Practical contents

Exercises and problems about the theoretical contents.

METHODOLOGY

 General clarifications on the methodology. (optional)

-Actividades prácticas: Serán de asistencia obligatoria por parte del alumnado. Se permitirá justificar solo ausencias médicas y laborales. En estas prácticas se fomentará el trabajo en pequeños grupos. El profesorado presentará la actividad, atenderá a las dudas y orientará el trabajo del alumnado.
-Actividades no presenciales: La actividad básica será el estudio, la resolución de problemas y la participación correcta en los foros virtuales de la asignatura relacionados con los contenidos.
-Tutorías: Serán en reuniones periódicas individuales o grupales entre el profesorado y el alumnado para guiar y orientar en las diversas actividades académicas planteadas. Algunas de estas acciones tutoriales se llevarán a cabo mediante la plataforma virtual.

 Methodological adaptations for part-time students

Los alumnos a tiempo parcial deberán realizar las mismas actividades que los alumnos a tiempo completo

Face-to-face activities

Activity	Large group	Medium group	Total
Assessment activities	4	-	*4*
Group work (cooperative)	16	4	*20*
Lectures	24	9	*33*
Tutorials	1	2	*3*
Total hours:	*45*	*15*	*60*

Not on-site activities

Actividad	Total
Bibliographic consultations	*10*
Exercises	*20*
Problems	*40*
Self-study	*20*
Total hours:	90

WORK MATERIALS FOR STUDENTS

Dossier
Exercises and problems
Manual of the subject

EVALUATION

Skills	Tools		
	Final exam	Practical cases and examples	Problem solving
CB1	x		
CB2	x		x
CB3	x		x
CB4	x		x
CB5	x		
CE1	x	x	
CE10	x		
CE3	x		
CM6.1	x		
CM6.2		x	x
CM6.3	x	x	x
CM6.4			x
CM6.5			x
CM6.6			x
Total (100%)	70%	20%	10%
Minimum grade.(*)	5	5	5

(*) Minimum grade necessary to pass the subject

¿Valora la asistencia?: *No*

General clarifications on instruments for evaluation:

La calificación mímima para eliminar contenido es un 5. El periodo válido de las calificaciones parciales mayores o iguales a cinco es hasta la convocatoria de julio

General clarifications on evaluation and methodological adaptation for part-time students:

Las actividades prácticas son obligatorias y presenciales. La ausendia injustificada al 20% de las prácticas implicará no superar esta parte. No obstante, el alumnado repetidor que no haya asistido a ninguna práctica podrá examinarse de esa parte en el examen final de la asignatura

Qualifying criteria for obtaining honors: *Definido en el reglamento de la universidad*

¿Hay examenes/pruebas parciales?: *No*

BIBLIOGRAPHY

1. Basic Bibliography:

Batanero, C., Godino, J.D. (2002): Estocástica y su didáctica para maestros. Universidad de Granada.http://www.ugr.es/local/jgodino/edumat-maestros/
Cid, E., Godino, J. D. y Batanero, C. (2003). Sistemas numéricos y su didáctica para maestros. Departamento de Didáctica de las Matemáticas. Universidad de Granada. (Recuperable en, http://www.ugr.es/local/jgodino/)
Finan, M. B. (2006). A First Course in Mathematics Concepts for Elementary School Teachers: Theory, Problems, and Solutions (p. 452). Arkansas Tech University.
Godino, J. D. (Director) (2004). Matemáticas para maestros. Departamento de Didáctica de las Matemáticas.

Universidad de Granada. (Recuperable en, http://www.ugr.es/local/jgodino/)
Haylock, D. (2010). Mathematics Explained for primary teachers (4th ed., p. 417). London: Sage Publications Ltd.
RED Descartes (2015). Recursos TIC para el aprendizaje de las Matemáticas y otras áreas.
http://proyectodescartes.org
Suggate, J., Davis, A., & Goulding, M. (2010). Mathematical Knowledge for Primary Teachers (4th ed., p. 315).
Oxon: Routledge.

2. Further reading:

Hughes, A. M. (2009). Problem Solving, Reasoning and Numeracy in the Early Years Foundation Stage (p. 144).
Oxon: Routledge.
Polya, G. (1957). How to Solve it (2nd ed.). Princeton University Press.
Skemp, R. (1989). Mathematics in the Primary School. London: Routledge.

COORDINATION CRITERIA

- Delivery date job
- Joint activities: lectures, seminars, visits ...
- Selection of common competencies

SCHEDULE

Period	Activity			
	Assessment activities	Group work (cooperative)	Lectures	Tutorials
1# Fortnight	0	3	4	0
2# Fortnight	0	3	4	0
3# Fortnight	0	3	5	1
4# Fortnight	2	3	5	0
5# Fortnight	0	3	5	0
6# Fortnight	0	3	5	1
7# Fortnight	2	2	5	1
Total hours:	*4*	*20*	*33*	*3*