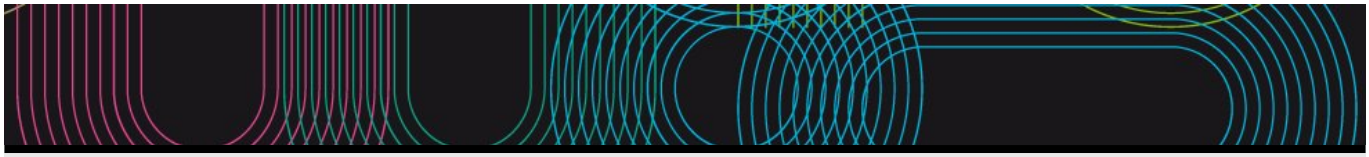

IDENTIFYING DATA				
Mathematics and its teaching 1				
Subject	Mathematics and its teaching 1			
Code	O05G120V01304			
Study programme	Grado en Educación Primaria			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Mandatory	2nd	1st
Teaching language	#EnglishFriendly Galician			
Department				
Coordinator	Valente da Silva Couto, Maria Joao			
Lecturers	Valente da Silva Couto, Maria Joao			
E-mail	mvalente@uvigo.es			
Web	http://https://moovi.uvigo.gal/			
General description	In this subject, students acquire mathematical skills and knowledge needed for their profession development. English Friendly subject International students may request from the teachers: a) materials and bibliographical references in English; b) tutoring sessions in English; c) exams and assessments in English.			

Skills	
Code	
A1	Students have shown to have and understand knowledge in an area of study based on general secondary education, and are at a level in which they can have recourse to advanced textbooks and also to have updated knowledge on the progress made in their field of study.
A2	Students know how to apply knowledge in their work or vocation in a professional manner and have competences that are usually proven through preparation and defence of arguments and problem-solving in their area of study.
A3	Students have the ability to gather and interpret relevant data (usually within their study area) to make judgements that include a reflection on the relevant social, scientific or ethical issues.
A4	Students can transmit information, ideas, problems and solutions to both specialised and non-specialised public.
A5	Students have developed the necessary learning skills to undertake further studies with a high degree of autonomy.
B1	Know the curricular areas of Primary Education, the interdisciplinary relation between them, the evaluation criteria and the body of didactic knowledge that encompasses the teaching and learning procedures.
B2	Design, plan and evaluate teaching and learning processes, both individually and in collaboration with other teachers and professionals from the centre.
B3	Effectively address language learning situations in multicultural and multilingual contexts. Encourage reading and critical appreciation of texts from the various scientific and cultural domains contained in the syllabus.
B4	Design and regulate learning spaces in diversity contexts, to address gender equality, equity and respect for human rights that constitute the values of citizenship training.
B5	Promote coexistence in and out of the classroom, solve discipline problems and contribute to peaceful resolution of conflicts. Encourage and appreciate effort, perseverance and personal discipline in students.
B7	Collaborate with the different sectors of the educational community and of the social environment. Take on the educator dimension of the teaching role and promote democratic education for active citizenship.
B9	Appreciate individual and group responsibility for achieving a sustainable future
B10	Reflect on classroom practices to innovate and improve teaching. Acquire habits and skills for autonomous and cooperative learning and promote them among students.
B12	Understand the role, possibilities and limits of education in today´s society and the key competencies that affect the primary education schools and their professionals. Know quality improvement models that can be applied to educational centres.
C38	Acquire basic maths skills (numeric, calculus, geometry, spatial representations, estimation and measurement, organisation and interpretation of information, etc.).
C39	Know the mathematics syllabus
C40	Analyse, reason and communicate mathematical proposals. Put forward and solve problems related to everyday life.

C41	Assess the relationship between mathematics and science as one of the pillars of scientific thought.
C42	Develop and evaluate curriculum contents using appropriate teaching resources and promote the corresponding competencies in students.
D1	Capacity for analysis and synthesis
D2	Capacity for organisation and planning
D3	Oral and written communication in the native language.
D6	Capacity for information management
D7	Troubleshooting
D8	Decision-making
D9	Team work
D12	Skills in interpersonal relationships
D14	Critical reasoning
D16	Autonomous learning
D18	Creativity
D21	Initiative and an entrepreneurial spirit
D22	Motivation for quality

Learning outcomes

Expected results from this subject	Training and Learning Results			
Acquire basic math skills.	A1 A2 A3 A4 A5		C38 C39 C40	D1 D2 D3 D7 D8 D14
Know school mathematics curriculum.	A2	B1 B2 B3 B4 B10	C39 C41 C42	D1 D2 D3 D7 D14
Analyze, ratiocinate and communicate mathematical proposals.	A3 A4	B2 B3 B4 B9 B10 B12	C40	D1 D2 D3 D7 D8 D9 D14 D18 D22
Present and solve problems related to everyday life.	A1 A2 A3 A4	B3 B5 B7 B12	C40 C41	D1 D2 D3 D6 D7 D8 D9 D12 D14 D16 D18 D21 D22
Value the relationship between mathematics and science as a scientific knowledge cornerstone.	A2	B3 B4 B12	C41	D1 D3 D8 D9 D14 D16 D18 D21 D22

Contents

Topic
1. Numbers and operations: previous concepts

2. Classification and ordenación
3. Natural numbers
4. Number systems
5. Operations
6. Divisibility
7. Fractions and decimales numbers
8. Arithmetic problems

Planning

	Class hours	Hours outside the classroom	Total hours
Problem solving	20	34	54
Mentored work	7	14	21
Lecturing	25	48	73
Objective questions exam	1	0	1
Problem and/or exercise solving	1	0	1

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Problem solving	Activity in which problems and/or exercises related to the subject are formulated. Students must develop appropriate solutions through the application of routines, formulas or algorithms, transforming available information and interpretating results. It is usually used as a lecture complement.
Mentored work	Student develops exercises or projects in classroom under teacher supervision. It can be linked with student autonomous activities.
Lecturing	Subject presentation by the teacher, theoretical bases and/or guidelines for a work, exercise or project to be developed by the student.

Personalized assistance

Methodologies	Description
Lecturing	Students will receive personalized attention both during class and during tutorial sessions.
Problem solving	Students will receive personalized attention both during class and during tutorial sessions.
Mentored work	Students will receive personalized attention both during class and during tutorial sessions.

Assessment

	Description	Qualification	Training and Learning Results			
Mentored work	Students must design an activity taking into account one or more competencies of the primary education mathematics curriculum.	30	A1 A2 A3 A4	B3 B5 B7 B12	C40	D2 D3 D6 D7 D9 D12 D16 D18 D21 D22
Objective questions exam	Students must choose the correct answer from 4 answer options.	30	A1 A3 A4	B1 B2 B4 B9 B12	C38 C39 C41 C42	D1 D2 D3 D7 D8 D14 D22
Problem and/or exercise solving	Students must solve 3 problems that are set as a practical exam.	40	A1 A2 A3 A4 A5	B1 B3 B5 B9 B10 B12	C39 C41	D2 D3 D6 D7 D14 D16 D18 D21 D22

Other comments on the Evaluation

- Non-assistant students will be evaluated based on the same tests.
- Not approved students can submit to the July exam period.
- Parts of the discipline approved in the 1st opportunity, won't be evaluated in the 2nd one, considering, therefore, as approved in this academic year.
- Official exam dates and schedule can be consulted on the faculty website http://fcce.uvigo.es/gl/docencia/exames/.
- Alined with inclusive principles that characterize the Faculty of Education and Social Service, this guide may be adapted to pedagogical support specific needs presented by students enrolled in the PIUNE program (PAT).

Sources of information

Basic Bibliography

Hidalgo Alonso, S., **Las Matemáticas en el título de maestro**, L. Diagonal, 1997

Nortess Checa, A ., **Matemáticas y su didáctica**, TEMA, 1993

Orton, A., **Didáctica de las matemáticas**, Morata, 1990

Sierra Vázquez, M. y otros, **Divisibilidad**, Síntesis, 1989

Complementary Bibliography

Recommendations

Other comments

This discipline takes place in a Faculty committed with environment sustainability and people. Alined with this philosophy, this discipline will promote educational practices based on materials of low environmental impact consistent with the principles of sustainability (SDG).