



Universitat d'Alacant  
Universidad de Alicante

## 17534 - TEACHING AND LEARNING MATHEMATICS IN PRIMARY EDUCATION (2021-22)

### General

**Code:** 17534

**Lecturer responsible:**

LLINARES CISCAR, SALVADOR

<b>Credits ECTS:</b>	<b>6,00</b>
Theoretical credits:	1,20
Practical credits:	1,20
Distance-base hours:	3,60

### Departments involved

- **Dept:** INNOVATION AND DIDACTIC TRAINING

**Area:** TEACHING MATHEMATICS

**Theoretical credits:** 1,2

**Practical credits:** 1,2

This Dept. is responsible for the course.

This Dept. is responsible for the final mark record.

### Study programmes where this course is taught

- DEGREE IN PRIMARY SPECIALITY  
Course type: COMPULSORY (Year: 3)

### Competencies and objectives

**Provisional information. Pending approval by the Department Council.**

## Course context for academic year 2021-22

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Subject in the Degree of Primary School Teacher.

3rd year

2nd semester

## Course content (verified by ANECA in official undergraduate and Master's degrees)

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### General Competences (CG)

- **CG1** : Identify information needs and then find, analyse, process, evaluate and communicate it effectively, critically and creatively.
- **CG2** : Plan, organise and manage processes, information, problem-solving and projects. Possess initiative, entrepreneurial spirit and the ability to generate new ideas and actions.
- **CG4** : Use the new information and communication technologies to learn, communicate and share knowledge.
- **CG9** : Assess the social and environmental impact of actions taken in one's field.

### Specific Competences (CE)

- **CE13** : Promote and head the development and implementation, in the school you belong to, of curriculum proposals in an area where are best qualified and take responsibility for promoting quality improvement processes in said area.
- **CE3** : Organise teaching in the framework of the epistemological paradigms of the subjects of the degree course, combining one's knowledge of the discipline with the transversal and multidisciplinary knowledge needed for the respective levels of education, showing one's understanding of the learning aims of the areas of knowledge laid down in the primary education curriculum.
- **CE5** : Identify and support those students who do not achieve their learning potential or have behavioural, emotional or social problems. Also know how to request advice from different services and specialists to attend diverse special education needs.
- **CE7** : Design and develop educational projects, programming units, contexts, activities and materials, including digital material, to allow the curriculum to be adapted to the diverse nature of the students and promote the quality of the contexts in which the educational process takes place, thus guaranteeing their well-being.
- **CE9** : Integrate information and communication technologies into guided and autonomous teaching and learning activities.

## Exclusive skill taught in this course

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No data

## Learning outcomes (Training objectives)

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No data

## Specific objectives stated by the academic staff for academic year 2021-22

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Understand the mathematics teaching-learning processes in Primary Education to develop teaching competence in

- planing the mathematics teaching
- interpreting the mathematics learning levels
- managing the mathematical communication in the classroom

## Content and bibliography

### Curricular adjustment of the academic year due 2021-22 to COVID-19

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If the evolution of the heath situation do not allow all students attend to attend the classroom, face-to-face activities may be taught online (completly or adpting dual-teaching)

### Content for academic year 2021-22

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Regarding the mathematical domains of: Numbers and operations, Geometry, Measurement and Information processing

- \* Characteristics of mathematical content in Primary Education: curriculum, textbooks, ...
- \* Characteristics of the primary students' mathematics learning: levels of development, difficulties, learning trajectories, ...
- \* Characteristics of mathematics teaching: tasks, activities and resources, mathematical communication in the classroom, ...

## Related links

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<http://matematicaenprimaria.com/>

Blog con recursos y actividades para la enseñanza de las matemáticas en Educación Primaria. (Autor: Ángel Martínez Recio, Universidad de Córdoba)

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<http://www.cepazahar.org/recursos/mod/page/view.php?id=5363>

¿ Ejemplos de proyectos en Educación Primaria. CEP Azahar

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<http://https://www.geogebra.org/m/YhMm8vgX>

Software de geometría dinámica

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<http://educalab.es/recursos/historico/primaria/matematicas>

DESCARTES. Aplicación didáctica interactiva de matemáticas

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<http://illuminations.nctm.org/>

Ejemplos de recursos interactivos para la enseñanza de las matemáticas

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<http://recursostic.educacion.es/descartes/web/>

INTEF- Instituto nacional de Tecnologías Educativas y de Formación del Profesorado Ministerio de Educación, Cultura y Deporte

## Bibliography

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### Dificultades de aprendizaje de los contenidos curriculares

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**Author(s):** Badia, Antoni (coord.)

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**Issue:** Barcelona : UOC, 2012;

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**ISBN:** 978-84-9029-988-3

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**Category:** Básico

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### El aprendizaje y la enseñanza de las matemáticas a temprana edad : el enfoque de las trayectorias de aprendizaje

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**Author(s):** Clements, Douglas H.; Sarama, Julie

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**Issue:** Vancouver : Learning Tools , 2015;

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**ISBN:** 978-0-692-52504-3

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**Category:** Básico

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### Como resolver problemas de geometria : problem-solving geométrico para 8-14 años

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**Author(s):** Todeschini, Marta

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**Issue:** Madrid : Narcea, 2019;

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**ISBN:** 978-84-277-2559-1

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**Category:** Complementario

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### Extending children`s mathematics : fractions and decimals

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**Author(s):** Empson, Susan B.; Levi, Linda

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**Issue:** Portsmouth, NH : Heinemann, 2011;

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**ISBN:** 978-0-325-03053-1

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**Category:** Complementario

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**Didáctica de las Matemáticas para maestros de Educación Primaria**

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**Author(s):** Carrillo Yáñez, José**Issue:** Madrid : Paraninfo, 2016;**ISBN:** 978-84-283-3754-0**Category:** Básico

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## Assessment

**Provisional information. Pending approval by the Department Council.**

## Evaluation adjustment for the academic year 2021-22 due to COVID-19

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Continuous assessment is prioritized through the means provided by the university. If the health situation does not allow the face-to-face tests, the evaluation may be carried out through the means provided by the university

## Assessment procedures and criteria 2021-22

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Theoretical-practical activities focused in analysis mathematics teaching-learning situations (using the language used in the group-class)

Description	Criteria	Type	Weighting system
Analysis	Theoretical-practical activities focused in the analysis of mathematics teaching-learning situations (The acquisition of competences, knowledge and learning from the training activities will be valued both in the ordinary and extraordinary evaluation period)	ACTIVITIES OF EVALUATION DURING THE SEMESTER	50
Analysis	Theoretical-practical activities focused in the analysis of mathematics teaching-learning situations (The acquisition of competences, knowledge and learning from the training activities will be valued both in the ordinary and extraordinary evaluation period)	FINAL TEST	50

## Official exam dates for academic year 2021-22

Exam session	Date	Time	Group - Classroom(s) allocated	Comments
(C3) Periodo ordinario para asignaturas de segundo semestre y anuales	06/06/2022			
(C4) Pruebas extraordinarias para asignaturas de grado y máster	11/07/2022			



## Academic staff



**LLINARES CISCAR, SALVADOR**

Lecturer responsible

THEORY CLASS: Groups: 2

PROBLEM PRACTICALS / WORKSHOP: Groups: 2

COMPUTER PRACTICALS: Groups: 2

**BUFORN LLORET, ANGELA**

THEORY CLASS: Groups: 5

PROBLEM PRACTICALS / WORKSHOP: Groups: 5

COMPUTER PRACTICALS: Groups: 5

**FERNANDEZ VERDU, CENEIDA**

THEORY CLASS: Groups: 4 , 10

PROBLEM PRACTICALS / WORKSHOP: Groups: 4

COMPUTER PRACTICALS: Groups: 4

**IVARS SANTACREU, PEDRO JOSE**

THEORY CLASS: Groups: 1

PROBLEM PRACTICALS / WORKSHOP: Groups: 1

COMPUTER PRACTICALS: Groups: 1

**MARTINEZ MARTINEZ, ELIZABETH**

THEORY CLASS: Groups: 7

PROBLEM PRACTICALS / WORKSHOP: Groups: 7

COMPUTER PRACTICALS: Groups: 7

**MORENO MORENO, MARIA DEL MAR**

THEORY CLASS: Groups: 3

PROBLEM PRACTICALS / WORKSHOP: Groups: 3

COMPUTER PRACTICALS: Groups: 3

**VIVES CESPEDES, MIGUEL ANGEL**

THEORY CLASS: Groups: 8 , 9

PROBLEM PRACTICALS / WORKSHOP: Groups: 8 , 9

COMPUTER PRACTICALS: Groups: 8 , 9

## Groups

### THEORY CLASS

Group	Semester	Morning or afternoon session	Language	No. of enrolled students	On registration, assigned to
Gr. 1 (THEORY CLASS) : 1 PRIMARY (SPANISH-MORNING)	2S	Morning	CAS	0	<ul style="list-style-type: none"> <li>▪ Allowed DEGREE IN PRIMARY SPECIALITY</li> </ul>
Gr. 10 (THEORY CLASS) : 10 PRIMARY (SPANISH-MORNING)	2S	Morning	CAS	0	<ul style="list-style-type: none"> <li>▪ Allowed DEGREE IN PRIMARY SPECIALITY</li> </ul>
Gr. 2 (THEORY CLASS) : 2 PRIMARY (SPANISH-MORNING)	2S	Morning	CAS	0	<ul style="list-style-type: none"> <li>▪ Allowed DEGREE IN PRIMARY SPECIALITY</li> </ul>
Gr. 3 (THEORY CLASS) : 3 PRIMARY (SPANISH-MORNING)	2S	Morning	CAS	0	<ul style="list-style-type: none"> <li>▪ Allowed DEGREE IN PRIMARY SPECIALITY</li> </ul>
Gr. 4 (THEORY CLASS) : 4 HIGH ACADEMIC PERFORMANCE GROUP (ARA)	2S	Morning	ANG	0	<ul style="list-style-type: none"> <li>▪ Allowed DEGREE IN PRIMARY SPECIALITY</li> </ul>
Gr. 5 (THEORY CLASS) : 5 PRIMARY (SPANISH MORNING)	2S	Morning	CAS	0	<ul style="list-style-type: none"> <li>▪ Allowed DEGREE IN PRIMARY SPECIALITY</li> </ul>

<b>Group</b>	<b>Semester</b>	<b>Morning or afternoon session</b>	<b>Language</b>	<b>No. of enrolled students</b>	<b>On registration, assigned to</b>
Gr. 6 (THEORY CLASS) : 6 PRIMARY (SPANISH-AFTERNOON)	2S	Afternoon	CAS	0	▪ Allowed DEGREE IN PRIMARY SPECIALITY
Gr. 7 (THEORY CLASS) : 7 PRIMARY (VALENCIAN-AFTERNOON)	2S	Afternoon	VAL	0	▪ Allowed DEGREE IN PRIMARY SPECIALITY
Gr. 8 (THEORY CLASS) : 8 PRIMARY (SPANISH-AFTERNOON)	2S	Afternoon	CAS	0	▪ Allowed DEGREE IN PRIMARY SPECIALITY
Gr. 9 (THEORY CLASS) : 9 PRIMARY (SPANISH-AFTERNOON)	2S	Afternoon	CAS	0	▪ Allowed DEGREE IN PRIMARY SPECIALITY

## PROBLEM PRACTICALS / WORKSHOP

<b>Group</b>	<b>Semester</b>	<b>Morning or afternoon session</b>	<b>Language</b>	<b>No. of enrolled students</b>
Gr. 1 (PROBLEM PRACTICALS / WORKSHOP) : 1 PRIMARY (SPANISH-MORNING)	2S	Morning	CAS	0
Gr. 10 (PROBLEM PRACTICALS / WORKSHOP) : 10 PRIMARY (SPANISH-MORNING)	2S	Morning	CAS	0

<b>Group</b>	<b>Semester</b>	<b>Morning or afternoon session</b>	<b>Language</b>	<b>No. of enrolled students</b>
Gr. 2 (PROBLEM PRACTICALS / WORKSHOP) : 2 PRIMARY (SPANISH-MORNING)	2S	Morning	CAS	0
Gr. 3 (PROBLEM PRACTICALS / WORKSHOP) : 3 PRIMARY (SPANISH-MORNING)	2S	Morning	CAS	0
Gr. 4 (PROBLEM PRACTICALS / WORKSHOP) : 4 HIGH ACADEMIC PERFORMANCE GROUP (ARA)	2S	Morning	ANG	0
Gr. 5 (PROBLEM PRACTICALS / WORKSHOP) : 5 PRIMARY (SPANISH MORNING)	2S	Morning	CAS	0
Gr. 6 (PROBLEM PRACTICALS / WORKSHOP) : 6 PRIMARY (SPANISH-AFTERNOON)	2S	Afternoon	CAS	0
Gr. 7 (PROBLEM PRACTICALS / WORKSHOP) : 7 PRIMARY (VALENCIAN-AFTERNOON)	2S	Afternoon	VAL	0
Gr. 8 (PROBLEM PRACTICALS / WORKSHOP) : 8 PRIMARY (SPANISH-AFTERNOON)	2S	Afternoon	CAS	0
Gr. 9 (PROBLEM PRACTICALS / WORKSHOP) : 9 PRIMARY (SPANISH-AFTERNOON)	2S	Afternoon	CAS	0











## COMPUTER PRACTICALS

<b>Group</b>	<b>Semester</b>	<b>Morning or afternoon session</b>	<b>Language</b>	<b>No. of enrolled students</b>
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<b>Group</b>	<b>Semester</b>	<b>Morning or afternoon session</b>	<b>Language</b>	<b>No. of enrolled students</b>
Gr. 1 (COMPUTER PRACTICALS) : 1 PRIMARY (SPANISH-MORNING)	2S	Morning	CAS	0
Gr. 10 (COMPUTER PRACTICALS) : 10 PRIMARY (SPANISH-MORNING )	2S	Morning	CAS	0
Gr. 2 (COMPUTER PRACTICALS) : 2 PRIMARY (SPANISH-MORNING)	2S	Morning	CAS	0
Gr. 3 (COMPUTER PRACTICALS) : 3 PRIMARY (SPANISH-MORNING)	2S	Morning	CAS	0
Gr. 4 (COMPUTER PRACTICALS) : 4 HIGH ACADEMIC PERFORMANCE GROUP (ARA)	2S	Morning	ANG	0
Gr. 5 (COMPUTER PRACTICALS) : 5 PRIMARY (MORNING SPANISH)	2S	Morning	CAS	0
Gr. 6 (COMPUTER PRACTICALS) : 6 PRIMARY (SPANISH- AFTERNOON)	2S	Afternoon	CAS	0
Gr. 7 (COMPUTER PRACTICALS) : 7 PRIMARY (VALENCIAN- AFTERNOON)	2S	Afternoon	VAL	0
Gr. 8 (COMPUTER PRACTICALS) : 8 PRIMARY (SPANISH- AFTERNOON)	2S	Afternoon	CAS	0
Gr. 9 (COMPUTER PRACTICALS) : 9 PRIMARY (SPANISH- AFTERNOON)	2S	Afternoon	CAS	0

## Timetables

### THEORY CLASS








Group	Start date	End date	Day	Start time	End time	Lecture room
1	31/01/2022	24/05/2022	MAR	10:00	12:00	ED/TALLER6 
10	31/01/2022	24/05/2022	MAR	08:00	10:00	ED/0-06 
2	31/01/2022	24/05/2022	MAR	08:00	10:00	ED/TALLER7 
3	31/01/2022	24/05/2022	MAR	12:00	14:00	ED/1-17 
4	31/01/2022	24/05/2022	MAR	10:00	12:00	ED/1-22 
5	31/01/2022	24/05/2022	MAR	10:00	12:00	ED/0-10 
6	31/01/2022	24/05/2022	MAR	15:00	17:00	ED/TALLER2 
7	31/01/2022	24/05/2022	MAR	17:00	19:00	ED/TALLER1 
8	31/01/2022	24/05/2022	MAR	17:00	19:00	ED/0-08 
9	31/01/2022	24/05/2022	MAR	19:00	21:00	ED/TALLER5 

### PROBLEM PRACTICALS / WORKSHOP

Group	Start date	End date	Day	Start time	End time	Lecture room
1	31/01/2022	24/05/2022	VIE	08:00	09:00	ED/TALLER6 
10	31/01/2022	24/05/2022	VIE	10:00	11:00	ED/1-19 

Group	Start date	End date	Day	Start time	End time	Lecture room
2	31/01/2022	24/05/2022	VIE	10:00	11:00	ED/TALLER7 
3	31/01/2022	24/05/2022	VIE	10:00	11:00	ED/1-17 
4	31/01/2022	24/05/2022	VIE	12:00	13:00	ED/1-22 
5	31/01/2022	24/05/2022	VIE	12:00	13:00	ED/0-10 
6	31/01/2022	24/05/2022	VIE	17:00	18:00	ED/TALLER2 
7	31/01/2022	24/05/2022	VIE	15:00	16:00	ED/TALLER1 
8	31/01/2022	24/05/2022	VIE	19:00	20:00	ED/0-08 
9	31/01/2022	24/05/2022	VIE	17:00	18:00	ED/TALLER5 

## COMPUTER PRACTICALS

Group	Start date	End date	Day	Start time	End time	Lecture room
1	31/01/2022	24/05/2022	VIE	09:00	10:00	ED/TALLER6 
10	31/01/2022	24/05/2022	VIE	11:00	12:00	ED/1-19 
2	31/01/2022	24/05/2022	VIE	11:00	12:00	ED/TALLER7 
3	31/01/2022	24/05/2022	VIE	11:00	12:00	ED/1-17 
4	31/01/2022	24/05/2022	VIE	13:00	14:00	ED/1-22 
5	31/01/2022	24/05/2022	VIE	13:00	14:00	ED/0-10 
6	31/01/2022	24/05/2022	VIE	18:00	19:00	ED/TALLER2 



<b>Group</b>	<b>Start date</b>	<b>End date</b>	<b>Day</b>	<b>Start time</b>	<b>End time</b>	<b>Lecture room</b>
7	31/01/2022	24/05/2022	VIE	16:00	17:00	ED/TALLER1 
8	31/01/2022	24/05/2022	VIE	20:00	21:00	ED/0-08 
9	31/01/2022	24/05/2022	VIE	18:00	19:00	ED/TALLER5 