

## DIDACTICS OF MATHEMATICS: NUMBER SENSE

### 17518 - DIDACTICS OF MATHEMATICS: NUMBER SENSE (2024-25)

#### General

**Code:** 17518

**Lecturer responsible:**

GONZALEZ FORTE, JUAN MANUEL

**Credits ECTS:**

**6,00**

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: 1)

#### Competencies and objectives

##### Course context for academic year 2024-25

Degree in Primary Education Speciality

Course type: Compulsory

1st year, 2nd semester

#### General Competences (CG)

- **CG1** : Identificar necessitats d'informació, buscar-la, analitzar-la, processar-la, valorar-la, usar-la i comunicar-la de manera eficaç, crítica i creativa.
- **CG2** : Planificar, organitzar i gestionar processos, informació, resolució de problemes i projectes. Tenir iniciativa, esperit emprenedor i capacitat de generar noves idees i accions.
- **CG3** : Mostrar habilitats lingüístiques orals i escrites per a ensenyar (llengües oficials de la Comunitat Valenciana i llengües estrangeres) i habilitats de comunicació en diferents nivells i registres.
- **CG4** : Fer ús de les noves tecnologies de la informació i la comunicació per a aprendre, comunicar-se i compartir coneixement.
- **CG8** : Entendre l'aprenentatge com un fet global, complex i transcendent. Autoregular el propi aprenentatge i mobilitzar sabers de tot tipus per a adaptar-se a situacions noves i connectar coneixements com a mètode per a elaborar-ne altres de nous.

#### Specific Competences (CE)

- **CE10** : Utilitzar l'avaluació en la seua funció pedagògica i no solament acreditativa, com a element regulador i promotor de la millora de l'ensenyament, de l'aprenentatge i de la pròpia formació, i assumir la necessitat de desenvolupament professional continu mitjançant la reflexió, l'autoavaluació i la investigació sobre la pròpia pràctica.
- **CE12** : Expressar-se oralment i per escrit amb la fluïdesa i la correcció necessàries en llengua catalana i castellana per a desenvolupar l'ensenyament en l'etapa de primària, i també utilitzar la llengua estrangera com a llengua vehicular en algunes situacions de l'aula.
- **CE2** : Comprendre les característiques i condicions en les quals es produeix l'aprenentatge escolar i identificar com pot afectar el desenvolupament de l'alumnat i exercir la funció tutorial, orientant els alumnes i els pares del seu grup d'alumnes. Tot això buscant l'entesa i la cooperació amb les famílies, tenint en compte els diferents contextos familiars i estils de vida.
- **CE3** : Organitzar l'ensenyament en el marc dels paradigmes epistemològics de les matèries del títol, utilitzant de forma integrada els coneixements disciplinaris, transversals i multidisciplinaris adequats al respectiu nivell educatiu, mostrant la comprensió dels objectius d'aprenentatge de les àrees de coneixement que estableix el currículum d'educació primària.
- **CE7** : Dissenyar i desenvolupar projectes educatius, unitats de programació, entorns, activitats i materials, incloent-hi els digitals, que permeten adaptar el currículum a la diversitat de l'alumnat i promoure la qualitat dels contextos en què es desenvolupa el procés educatiu, de manera que es garantisca el seu benestar.
- **CE9** : Integrar les tecnologies de la informació i comunicació en les activitats d'ensenyament i aprenentatge guiat i autònom.

#### 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 2024-25

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Develop the mathematical competence in the field of number sense, magnitudes, information processing and problem solving as a basis for teaching mathematics

## Content and bibliography

### Content for academic year 2024-25

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Meaning of "Number Sense" in Primary Education.

Representation systems.

Natural numbers: numbering systems and operations.

Whole and rational numbers: representation and operations.

Numerical relationships: divisibility and numerical patterns.

Magnitudes and measurements. Estimate.

Problem solving.

The contents will be studied from curricular, mathematical and learning perspectives.

## Related links

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<http://nlvm.usu.edu/es/nav/vlibrary.html>

Recursos

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

Ejemplos de recursos interactivos para la enseñanza de las matemáticas

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

DESCARTES. Aplicación didáctica interactiva de matemáticas

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

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

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

**Author(s):** Carrillo Yáñez, José

**Issue:** Madrid : Paraninfo, 2016;

**ISBN:** 978-84-283-3754-0

**Category:** Básico

### Didáctica de las matemáticas para Primaria

**Author(s):** Chamorro Plaza, María del Carmen

**Issue:** Madrid : Pearson Educación, 2003;

**ISBN:** 978-84-205-3454-1

**Category:** Sin especificar

### El aprendizaje de las matemáticas

**Author(s):** Dickson, Linda

**Issue:** Barcelona : Labor, 1991;

**ISBN:** 84-335-5148-5

**Category:** Básico

### Matemáticas: complementos de formación disciplinar

**Author(s):** Goñi, Jesus Mari

**Issue:** Barcelona : GRAÓ, 2010;

**ISBN:** 978-84-9980-045-5

**Category:** Sin especificar

### Matemáticas para maestros de educación primaria

**Author(s):** SEGOVIA ALEX, Isidoro...[et al.]

**Issue:** Madrid : Pirámide, 2011;

**ISBN:** 978-84-368-2565-7

**Category:** Básico

## Assessment

### Assessment procedures and criteria 2024-25

Students will be evaluated in the language in which the group in which they are enrolled is taught.

#### ORDINARY CALL (C3 Call)

There are two evaluation options.

##### Option 1 (Continuous Assessment)

Two assessable individual practices will be carried out.

- Practice 1: (50%).
- Practice 2: (50%).

Students who show up for the assessable practice 1 opt for the continuous evaluation option. In this case, **the final grade for the subject will be calculated by averaging the two individual assessable practices.**

The subject is passed by obtaining a grade equal to, or higher, than 5.

##### Option 2 (Non Continuous Assessment)

Students who have not completed assessable practice 1 can opt for evaluation option 2. In this case, the student will take an **exam whose grade will constitute 100% of the grade for the subject. (Exam of the whole subject).**

The subject is passed by obtaining a grade equal to, or higher, than 5.


#### EXTRAORDINARY CALL (C4 Call)

Students who have not passed the subject in the C3 call (or have not used the C3 call) can take the C4 call, in which they will take an **exam whose grade will constitute 100% of the grade for the subject.**

The subject is passed by obtaining a grade equal to, or higher, than 5.

Description	Criteria	Type	Weighting system
Option1: Assessable Practice 1- Solving theoretical- practical problems	Level reached in solving problems identifying the concepts and mathematical procedures that allow solving them (the evaluation activities will assess the acquisition of skills, knowledge and learning of the training activities).	ACTIVITIES OF EVALUATION DURING THE SEMESTER	50
Option 1: Assessable Practice 2- theoretical- practical problems	Level reached in solving problems identifying the concepts and mathematical procedures that allow solving them (the evaluation activities will assess the acquisition of skills, knowledge and learning of the training activities).	ACTIVITIES OF EVALUATION DURING THE SEMESTER	50

## Official exam dates for academic year 2024-25

Exam session	Date	Time	Group - Classroom(s) allocated	Comments	
(C1) Pruebas extraordinarias de finalización de estudios	23/09/2024	09:00 - 12:00	A.1/1.42S 		
(C3) Periodo ordinario para asignaturas de segundo semestre y anuales	28/05/2025	GROUP 1 (THEORY CLASS)			
		GROUP 11 (THEORY CLASS)			
		GROUP 12 (THEORY CLASS)			
		GROUP 2 (THEORY CLASS)			
		GROUP 3 (THEORY CLASS)			
		GROUP 4 (THEORY CLASS)			
		GROUP 5 (THEORY CLASS)			
		GROUP 6 (THEORY CLASS)			
		GROUP 7 (THEORY CLASS)			
		GROUP 8 (THEORY CLASS)			
GROUP 9 (THEORY CLASS)					

## Academic staff



### **GONZALEZ FORTE, JUAN MANUEL**

Lecturer responsible

THEORY CLASS: Groups: 4

PROBLEM PRACTICALS / WORKSHOP: Groups: 4



### **BARDAL ROMERO, VICENTE**

THEORY CLASS: Groups: 6

PROBLEM PRACTICALS / WORKSHOP: Groups: 6



### **IVARS SANTACREU, PEDRO JOSE**

THEORY CLASS: Groups: 1 , 12

PROBLEM PRACTICALS / WORKSHOP: Groups: 1 , 12



### **LILLO TORREGROSA, EDUARDO**

THEORY CLASS: Groups: 9

PROBLEM PRACTICALS / WORKSHOP: Groups: 9



### **PEREZ TYTECA, PATRICIA**

THEORY CLASS: Groups: 11

PROBLEM PRACTICALS / WORKSHOP: Groups: 11



### **SAORIN VILLA, ANTONIO**

THEORY CLASS: Groups: 3 , 5 , 8

PROBLEM PRACTICALS / WORKSHOP: Groups: 3 , 5 , 8

## Groups

### THEORY CLASS

Group	Semester	Morning or afternoon session	Language	No. of enrolled students	On registration, distribution
Gr. 1 (THEORY CLASS) : 1 PRIMARY (SPANISH-MORNING)	2S	Morning	Spanish	52	From ID document number A - To ID document number Z
Gr. 11 (THEORY CLASS) : 11 PRIMARY (SPANISH-MORNING)	2S	Morning	Spanish	41	From ID document number A - To ID document number Z
Gr. 12 (THEORY CLASS) : 12 PRIMARY (SPANISH-MORNING)	2S	Morning	Spanish	47	From ID document number A - To ID document number Z
Gr. 2 (THEORY CLASS) : 2 PRIMARY (SPANISH-MORNING)	2S	Morning	Spanish	53	From ID document number A - To ID document number Z
Gr. 3 (THEORY CLASS) : 3 PRIMARY (SPANISH-MORNING)	2S	Morning	Spanish	52	From ID document number A - To ID document number Z
Gr. 4 (THEORY CLASS) : 4 HIGH ACADEMIC PERFORMANCE GROUP (ARA)	2S	Morning	English	31	From ID document number A - To ID document number Z
Gr. 5 (THEORY CLASS) : 5 PRIMARY (SPANISH-MORNING)	2S	Morning	Spanish	51	From ID document number A - To ID document number Z
Gr. 6 (THEORY CLASS) : 6 PRIMARY (SPANISH-AFTERNOON)	2S	Afternoon	Spanish	52	From ID document number A - To ID document number Z
Gr. 7 (THEORY CLASS) : 7 PRIMARY (SPANISH-AFTERNOON)	2S	Afternoon	Spanish	54	From ID document number A - To ID document number Z
Gr. 8 (THEORY CLASS) : 8 PRIMARY (SPANISH-AFTERNOON)	2S	Afternoon	Spanish	53	From ID document number A - To ID document number Z
Gr. 9 (THEORY CLASS) : 9 PRIMARY (VALENCIAN-AFTERNOON)	2S	Afternoon	Valencian	48	From ID document number A - To ID document number Z

### PROBLEM PRACTICALS / WORKSHOP












Group	Semester	Morning or afternoon session	Language	No. of enrolled students
Gr. 1 (PROBLEM PRACTICALS / WORKSHOP) : 1 PRIMARY (SPANISH-MORNING)	2S	Morning	Spanish	52
Gr. 11 (PROBLEM PRACTICALS / WORKSHOP) : 11 PRIMARY (SPANISH-MORNING)	2S	Morning	Spanish	41
Gr. 12 (PROBLEM PRACTICALS / WORKSHOP) : 12 PRIMARY (SPANISH-MORNING)	2S	Morning	Spanish	47
Gr. 2 (PROBLEM PRACTICALS / WORKSHOP) : 2 PRIMARY (SPANISH-MORNING)	2S	Morning	Spanish	53









<b>Group</b>	<b>Semester</b>	<b>Morning or afternoon session</b>	<b>Language</b>	<b>No. of enrolled students</b>
Gr. 3 (PROBLEM PRACTICALS / WORKSHOP) : 3 PRIMARY (SPANISH-MORNING)	2S	Morning	Spanish	52
Gr. 4 (PROBLEM PRACTICALS / WORKSHOP) : 4 HIGH ACADEMIC PERFORMANCE GROUP (ARA)	2S	Morning	English	31
Gr. 5 (PROBLEM PRACTICALS / WORKSHOP) : 5 PRIMARY (SPANISH-MORNING)	2S	Morning	Spanish	51
Gr. 6 (PROBLEM PRACTICALS / WORKSHOP) : 6 PRIMARY (SPANISH-AFTERNOON)	2S	Afternoon	Spanish	52
Gr. 7 (PROBLEM PRACTICALS / WORKSHOP) : 7 PRIMARY (SPANISH-AFTERNOON)	2S	Afternoon	Spanish	54
Gr. 8 (PROBLEM PRACTICALS / WORKSHOP) : 8 PRIMARY (SPANISH-AFTERNOON)	2S	Afternoon	Spanish	53
Gr. 9 (PROBLEM PRACTICALS / WORKSHOP) : 9 PRIMARY (VALENCIAN-AFTERNOON)	2S	Afternoon	Valencian	48

## Timetables

### THEORY CLASS

Group	Start date	End date	Day	Start time	End time	Lecture room
1	27/01/2025	23/05/2025	MAR	08:00	10:00	<a href="#">ED/0-01</a> 
11	27/01/2025	23/05/2025	MAR	08:00	10:00	<a href="#">ED/1-24</a> 
12	27/01/2025	23/05/2025	MAR	12:00	14:00	<a href="#">ED/1-24</a> 
2	27/01/2025	23/05/2025	MAR	10:00	12:00	<a href="#">ED/0-02</a> 
3	27/01/2025	23/05/2025	MAR	10:00	12:00	<a href="#">ED/0-04</a> 
4	27/01/2025	23/05/2025	MAR	12:00	14:00	<a href="#">ED/0-03</a> 
5	27/01/2025	23/05/2025	MAR	12:00	14:00	<a href="#">ED/1-23</a> 
6	27/01/2025	23/05/2025	MAR	17:00	19:00	<a href="#">ED/0-01</a> 
7	27/01/2025	23/05/2025	MAR	15:00	17:00	<a href="#">ED/0-02</a> 
8	27/01/2025	23/05/2025	MAR	19:00	21:00	<a href="#">ED/0-03</a> 
9	27/01/2025	23/05/2025	MAR	17:00	19:00	<a href="#">ED/0-04</a> 

### PROBLEM PRACTICALS / WORKSHOP

Group	Start date	End date	Day	Start time	End time	Lecture room
1	27/01/2025	23/05/2025	JUE	08:00	10:00	<a href="#">ED/0-01</a> 
11	27/01/2025	23/05/2025	JUE	08:00	10:00	<a href="#">ED/1-24</a> 
12	27/01/2025	23/05/2025	JUE	12:00	14:00	<a href="#">ED/1-24</a> 
2	27/01/2025	23/05/2025	JUE	10:00	12:00	<a href="#">ED/0-02</a> 
3	27/01/2025	23/05/2025	JUE	10:00	12:00	<a href="#">ED/0-04</a> 
4	27/01/2025	23/05/2025	JUE	12:00	14:00	<a href="#">ED/0-03</a> 

Group	Start date	End date	Day	Start time	End time	Lecture room
5	27/01/2025	23/05/2025	JUE	12:00	14:00	ED/0-06.. 
6	27/01/2025	23/05/2025	JUE	17:00	19:00	ED/0-01.. 
7	27/01/2025	23/05/2025	JUE	15:00	17:00	ED/0-02.. 
8	27/01/2025	23/05/2025	JUE	19:00	21:00	ED/0-03.. 
9	27/01/2025	23/05/2025	JUE	17:00	19:00	ED/0-04.. 