

# **TEACHING GUIDE**

## **LABORATORIO DE JUEGOS MATEMATICOS**

### **GRADO EN EDUCACIÓN INFANTIL (INGLÉS)**

### **ACADEMIC YEAR 2026-27**

Publication date: 27-06-2026



### I.-Subject Identification

|                                        |                       |
|----------------------------------------|-----------------------|
| Type                                   | OBLIGATORIA           |
| Teaching period                        | 4 course, 1Q semester |
| Nº of credits                          | 4.5                   |
| Language in wich the subject is taught | English               |

### II.-Presentation

Esta asignatura es una de las tres que conforman la materia 3.1.“Didáctica de las Matemáticas / Matemáticas” (incluida en el Módulo 3 de conocimientos obligatorios del Grado); esta materia completa las asignaturas de "Desarrollo del Pensamiento Matemático" y “Didáctica de las Matemáticas”, que se imparten en cursos anteriores de este Grado.

No se requieren requisitos previos para cursar esta asignatura, excepto las competencias y conocimientos de Matemáticas correspondientes a la enseñanza obligatoria, que el alumno ya ha cursado, y los conocimientos y competencias adquiridos en las asignaturas previas de Matemáticas de la titulación.

Language in wich the subject is taught: spanish.

**(Se imparte en castellano)**

### III.-Learning outcomes

CGI1. Ability to analyse and synthesise.  
 CGI2. Organisation and planning skills  
 CGI6. Information management skills  
 CGP1. Teamwork  
 CGP3. Interpersonal Relations Skills  
 CGP5. Critical reasoning.  
 CGS7. Creativity.  
 CE4 Ability to analyse and to questioning the conceptions of education derived from Research, as well as curricular proposals of educational administration.  
 CE5 Respect for cultural and personal differences of students and other members of the educational community.  
 CE6 Design and development of educational projects and programming units to adapt the curriculum to the socio-cultural context.  
 CE7 Ability to carry out the tutorial function, guiding pupils and parents and coordinating the educational action concerning their group of students.  
 CE9 Ability to collaborate with different sectors of the educational community and with the environment.  
 CEGEI1 Know the curricular areas of Pre Primary Education, the interdisciplinary relationship between them, the assessment criteria and the body of didactic knowledge around the respective teaching and learning procedures.  
 CEGEI2 Effectively approach to an early childhood learning situations from a globalising and integrating perspective of the different cognitive, emotional, social, motor, linguistic and self-regulation dimensions. (globalising perspective)  
 CEGEI6 Detect possible difficulties that pupils may present and to elaborate didactic strategies and curricular adaptations that take into account the diversity of students, promoting their educational and social inclusion. (Attention to diversity perspective)  
 CEGEI7 Design didactic actions related to understand the space and time in schoolchildren. (space-time perspective)  
 CEGEI8 Design and develop educational communication and expression approaches using gestural and verbal-iconic strategies. (Basic or instrumental learning).  
 CEGEI10 Use of the different languages to promote and develop creativity. (regarding creativity)  
 CEGEI11 Designing experiences to get to know the natural world through sensory perception. (Sensorial and experiential development )  
 CEGEI15 Reflect on classroom practices in order to innovate and improve teaching work. Acquire habits and skills for autonomous and cooperative learning and promote it among students

- Key for degrees not adapted to RD 822/21: **CB** - basic competences, **CG** - generic competences, **CE** - specific competences, **CT** - transversal competences.
- Key for degrees adapted to RD 822/21: **CON** - knowledge, **COM** - competences, **HAB** - skills.



#### IV.-Contents

##### IV.A.-Syllabus

| Bloque temático                      | Tema                                                     | Apartados                                                                                                             |
|--------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| I.- Introducción                     | Tema 1. El juego en matemáticas en la Educación Infantil | ¿Qué es un juego?<br>El juego en la Educación Infantil<br>Juego y matemáticas<br>Juegos para trabajar las matemáticas |
| II.- Juegos y contenidos matemáticos | Tema 2. El pensamiento lógico                            | Juegos estructurados<br>Juegos no estructurados<br>Juegos de estrategia                                               |
|                                      | Tema 3. La estructuración del espacio y la geometría     | Juegos para trabajar las formas, la orientación y localización en el espacio, los desplazamientos.                    |
|                                      | Tema 4. El ámbito numérico                               | Juegos para dar sentido al número<br>Juegos para las primeras operaciones                                             |
|                                      | Tema 5. Magnitudes y medidas                             | Juegos para la medida y estimaciones<br>El tiempo                                                                     |

##### IV.B.-Training activities

| Type                                            | Title                                                                                                           |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Resolution of exercises, problems, case studies | Creación de juegos para el aula de Educación Infantil, de manera presencial en el aula y/o en remoto (AP), (AD) |



#### V.-Student workload

|                                                                                              |      |
|----------------------------------------------------------------------------------------------|------|
| Theoretical sessions                                                                         | 20   |
| Resolution of exercises, problems, case studies, etc.                                        | 15   |
| Practical sessions in experimental, technological and clinical laboratories, fieldwork, etc. | 7    |
| Tests and/or exams                                                                           | 3    |
| Academic tutorials                                                                           | 7,5  |
| Related activities: conferences, seminars, etc.                                              | 6    |
| Preparation of theoretical sessions and self-study                                           | 24   |
| Preparation of practical tasks, exercises, case studies, projects, etc.                      | 28,5 |
| Preparation for tests and/or exams                                                           | 24   |
| Total student workload                                                                       | 135  |

#### VI.-Methodology and academic programme

| Type                 | Period            | Content                                                                                                                   |
|----------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------|
| Practical sessions   | Week 1 to Week 15 | Diseño de juegos/otros.                                                                                                   |
| Other activities     | Week 1 to Week 15 | Presentación y defensa de los contenidos didácticos detrás de sus juegos y los creados por sus compañeros.                |
| Theoretical sessions | Week 1 to Week 15 | Nuevos contenidos relacionados con el juego en Educación Infantil y repaso de contenidos anteriores que se van a aplicar. |
| Theoretical sessions | Week 1 to Week 15 | Trabajo sobre lecturas.                                                                                                   |



## VII.-Assessment methods

The general assessment method is continuous as established in the *Regulation for the Assessment of Learning Outcomes* of Rey Juan Carlos University.

All the assessment systems established in the degree report must be employed, except for those that have a minimum weight of 0%, which can be used by professors in the academic years they consider relevant. Each assessment system may be applied through one or more assessment activities, consistent with the system. No assessment activity can exceed individually 60% of the overall grade for the subject.

The sum of non re-evaluable activities cannot exceed 40% of the overall grade for the subject and, in general, should not have an established minimum grade (except for practical activities in which, strictly speaking, the conditions of the ordinary call cannot be reproduced in the extraordinary call).

Those students who do not manage to pass the subject in the ordinary call, or do not attend this first call, may attend the extraordinary call only for failed re-evaluable assessment activities.

The distribution and characteristics of the assessment activities are described below.

### VII.A.-Description and weight of the assessment activities

## Assessment weighting

### Continuous ordinary assessment:

The distribution and characteristics of the assessment tests are those described below. Only in exceptional case and for special reasons may the teacher add changes to the Guide. These changes will require the prior consultation with the Subject Head and the prior and explicit authorisation of the Degree Programme Coordinator, who will notify the Vice-Rector's office in charge of Academic Affairs of the modifications made. In any case, the changes proposed must take into account the stipulations of the verified report. In order for these changes to take effect, they must be duly communicated at the start of the course to the students using Aula Virtual.

The combination of activities that are not re-assessable cannot exceed 50% of the subject grade and, in general, cannot have a minimum grade (except for the case of laboratory or clinical work placements, where duly justified), and tests which exceed 60% of the subject weighting cannot be added.

**Extraordinary assessment:** Students who do not manage to pass the ordinary assessment, or who did not attend, will be subject to completion of an extraordinary assessment to verify their acquisition of the skills established in the guide, only for activities that are re-assessable.

## Description of the tests for assessment and their weights.

La asignatura se evaluará mediante las siguientes pruebas:

1. Prueba presencial escrita (20% de la nota). Evaluación en periodo ordinario. Revaluable en periodo extraordinario.
2. Trabajo en grupo (40%). Evaluación en periodo ordinario. Revaluable en periodo extraordinario.
3. Trabajo individual (25%). Evaluación en periodo ordinario. Revaluable en periodo extraordinario.
4. Trabajo en el aula (15%). Se realizará a lo largo del cuatrimestre. No revaluable.

Para poder aprobar la asignatura es necesario una nota superior o igual a 5 en la prueba presencial escrita, en el trabajo grupal y en el trabajo individual.

Si se solicita la convocatoria adelantada de esta asignatura el sistema de evaluación será similar al de la evaluación ordinaria, teniendo que realizar el alumno las siguientes pruebas:

- Prueba presencial escrita (20% de la nota)
- Trabajos individuales (80%)

Para poder aprobar la asignatura es necesario una nota superior o igual a 5 en la prueba presencial escrita y en los trabajos individuales.

### VII.B. Assessment of students with academic exemption from class attendance



Having Academic Exemption from Class Attendance (DAAC) does not imply that students are automatically exempt from participating in the continuous assessment activities or in the training activities of compulsory attendance as established in the teaching guide. Once the exemption has been granted, students must contact the subject's teaching staff, who will propose the adaptations he/she may consider relevant, as long as they guarantee the acquisition and adequate assessment of the learning goals established. Students must maintain adequate communication with the teaching staff so that they may provide information on the dates for training and assessment activities, if these are not established in the programme and available for students at the time of achieving the exemption.

Subject with possibility of academic exemption: Yes.

#### VII.C. Review of assessment activities

In accordance with the Regulation for the Assessment of Learning Outcomes of Rey Juan Carlos University.

#### VII.D.-Students with a disability or special educational needs

In order to guarantee equal opportunities, non-discrimination, universal accessibility and academic success, students with disabilities or especial education needs may request curricular adaptations to follow their studies. These adaptations will be provided by the Unit of Attention to People with Disabilities of Rey Juan Carlos University, in accordance with the regulation which regulates the service for the Attention of People with Disabilities at the University. This Unit will issue a report for curricular adaptations, so that students with disabilities or special education needs must contact the service (at e-mail [discapacidad.programa@urjc.es](mailto:discapacidad.programa@urjc.es)) in order to provide relevant information for different educational alternatives.

#### VII.E.-Academic behaviour, academic integrity and honesty

Rey Juan Carlos University is fully committed to the highest standards of academic integrity and honesty, so studying at the URJC means assuming and subscribing to the values of integrity and academic honesty set out in the University's Ethical Code. To support this process, the University has Rey Juan Carlos University's Academic Conduct Regulation as well as different tools (anti-plagiarism, supervision...) that offer a collective guarantee for the full development of these essential values.



### VIII.-Teaching resources and materials

#### Basic bibliography

Cómo desarrollar el pensamiento matemático de 0 a 6 años A. Alsina Editorial Octaedro

Didáctica de las matemáticas en Educación Infantil. Arteaga y Macías. Unir Editorial

Matemáticas Activas (2 a 6 años) Catherine Berdonneau Ed. Graó

Matemáticas Re-creativas VV.AA. Ed. Graó

Matemáticas para los más pequeños Adriana Castro Fernanda Penas CEP

La inteligencia se construye usándola. Escuelas Infantiles de Reggio Emilia VV.AA. Ed. Morata

Didáctica de las matemáticas para infantil M<sup>a</sup> Carmen Chamorro (coord.) Pearson Educación

#### Consultation bibliography

Enseñar matemáticas C. Alsina y otros Graó

### IX.-Professors

|                                         |                                                                                                     |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------|
| Name and surname                        | LETICIA MARÍA RODAS ALFAYA                                                                          |
| E-mail address                          | leticia.rodas@urjc.es                                                                               |
| Department                              | Economía Financiera y Contabilidad                                                                  |
| Campus                                  | Fuenlabrada                                                                                         |
| Category                                | Profesor/a Ayudante Doctor/a                                                                        |
| Academic degree                         | Doctor                                                                                              |
| Person responsible for the subject      | No                                                                                                  |
| Tutorial timetable                      | Para consultar las tutorías póngase en contacto con el/la profesor/a a través de correo electrónico |
| Number of quinquennia                   | 3                                                                                                   |
| Number of sexennia                      | 0                                                                                                   |
| No. of positive evaluations by Docencia | 5                                                                                                   |

|                                    |                                    |
|------------------------------------|------------------------------------|
| Name and surname                   | MARÍA SOLEDAD DE PEDRO RÁEZ        |
| E-mail address                     | maria-soledad.depedro@urjc.es      |
| Department                         | Economía Financiera y Contabilidad |
| Campus                             | Madrid - Vicálvaro                 |
| Category                           | Profesor/a Asociado/a              |
| Person responsible for the subject | Yes                                |



|                                                |                                                                                                     |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Tutorial timetable</b>                      | Para consultar las tutorías póngase en contacto con el/la profesor/a a través de correo electrónico |
| <b>Number of quinquennia</b>                   | 1                                                                                                   |
| <b>Number of sexennia</b>                      | 0                                                                                                   |
| <b>No. of positive evaluations by Docencia</b> | 0                                                                                                   |
|                                                |                                                                                                     |