

TEACHING GUIDE

EXPERIMENTAL AND SOCIAL SCIENCES IN PRIMARY EDUCATION

GRADO EN EDUCACIÓN PRIMARIA (INGLÉS)

ACADEMIC YEAR 2026-27

Publication date: 01-07-2026



I.-Subject Identification

Type	OBLIGATORIA
Teaching period	4 course, 1Q semester
Nº of credits	6
Language in wich the subject is taught	English

II.-Presentation

1.INTRODUCTION

The promulgation of *Ley Orgánica 3/2020, de 29 de diciembre, por la que se modifica la Ley Orgánica 2/2006, de 3 de mayo, de Educación* and its specific *Real Decreto 157/2022, de 1 de marzo, por el que se establecen la ordenación y las enseñanzas mínimas de la Educación Primaria* has established a new regulatory framework for Primary Education. The transposition of this national law to the Community of Madrid legislation was done through *DECRETO 61/2022, de 13 de julio, del Consejo de Gobierno, por el que se establece para la Comunidad de Madrid la ordenación y el currículo de la etapa de Educación Primaria*. Because of this legal frame, important changes were done in the Science curriculum in Primary Education.

Among them, the subjects *Ciencias Naturales* and *Ciencias Sociales* were reunified in *Conocimiento del Medio Natural, Social y Cultural*. Some items, traditionally taught in the field of Natural Sciences, such as the study of the Universe and the Solar System, were moved to Social Science, laying down a bridge between them both. University Rey Juan Carlos responds with a subject for this Degree: *Experimental and Social Science in Primary Education*. It is a 6 ECTS mandatory subject to be taught in the first four-month period of Degree in Primary Education fourth year.

The main goal of the subject is to complete the academic training given to students of Degree in Primary Education through *Didactics of Natural Science I and II* and *Didactics of Social Science I and II*. Nevertheless, because of its different length and name, this subject is somehow unique in a double way. First, it is intended for scientific contents themselves rather than teaching didactic strategies. On the other hand, its historic and philosophical approach is an attempt for the students to become aware of the major importance that the great scientific revolutions have had, not only in the thought building but also in the improvement of the economic and social conditions of Mankind, thank technological advances that scientific discoveries make possible.

The main contents to be treated in Social Science are Archaeology, History, Anthropology, Art, Heritage and Geography (cartography). Cosmology and planet Earth will be taught in the part of Natural Science.

Previous academic requirements are not demanded, but it seems to be very convenient the student to have passed all four *Didactics*, taught during the second and third years.

OBJECTIVES

Experimental and Social Science in Primary Education aim is to give future school teachers, together with all four previous *Didactics*, some didactic and scientific basics they will need for the professional teaching practice within the framework of Primary Education. Its specific aim is the students to realize how important the Experimental and Social sciences are as much in physic world modern comprehension as in practical consequences of technological development. To summarize, the present subject opens doors for the growth of a critical, thoughtful, non-dogmatic, and active attitude about the comprehension of the World, that must afterward root in the future teaching practice in Primary Education stage

.MASTER LINES

- History of Spain
- Geography and Economy of Spain
- Cosmology
- Geology

III.-Learning outcomes



CGI01. Capacity for analysis and synthesis
 CGI02. Organizational and planning capacity
 CGI06. Information management capability
 CGP01. Teamwork.
 CGP03. Skills in interpersonal relationships
 CGP05. Critical reasoning.
 CGS07. Creativity.
 CG01. Acquire and understand the necessary knowledge of the different areas of study that make up the title in such a way that they train for the profession of Teacher in Primary Education.
 CG02. Know how to apply this knowledge to the work in a professional way, demonstrating the mastery of the competences through the elaboration and defense of arguments and resolution of problems in these areas of study.
 CG03. Be able to collect and interpret relevant data from the different areas of study and to make judgments that include a reflection on relevant issues of a socio-educational, scientific and ethical nature.
 CG04. Be able to transmit information, ideas, problems and solutions to specialized people linked to their training, as well as to people whose link is indirect.
 CG05. Acquire the necessary learning skills to expand their studies autonomously.
 CE02 . Knowledge of contents to be taught, understanding their epistemological singularity and the specificity of their didactics.
 CE03 . Solid scientific and cultural and technological training
 CE05 . Respect for cultural and personal differences of students and other members of the educational community.
 CE06 . Design and development of educational projects and programming units for adapting the curriculum to the sociocultural context .
 CE08 . Commitment to enhance the academic performance of students and their school progress, within the framework of an integral education.
 CE01 . Know the different curricular areas of Primary Education (especially the subject that concerns us) with all the elements of the Teaching/Learning process and the interdisciplinary relationship between the areas.
 CE02 . Effectively address learning situations (in design, development and evaluation) between the ages of 6 and 12, from a globalizing and integrating perspective of the different cognitive, emotional, motor, linguistic and self-regulatory dimensions. (Globalizing perspective)
 CE03 . Create learning environments that encourage empathy , social behavior , autonomy and multicultural coexistence systematically observing the social , family and school environment. (Contextual and natural social perspective) .
 CE07 . Design didactic actions related to understanding space and time in schoolchildren. (Space-time perspective)
 CE09 . Apply and properly use New Technologies as a vehicle for information, communication and introduction in the world of mass-media. (About New Technologies)
 CE11. Design experiences to know the natural world through sensory perception. (On sensory and experimental development)
 CE15. Reflect on classroom practices to innovate and improve teaching work. Acquire habits and skills for autonomous and cooperative learning and promote it among students.
 CE17. Promote the democratic education of citizens and the practice of critical social thinking.

- 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

THEMATIC BLOCK I. SOCIAL SCIENCES.

Contents Archaeology and History, Anthropology, Art, Heritage, and Geography.

Topic 0.-Introduction

Topic 1.-Prehistory and Ancient Age in Spain. Romanization.

Topic 2.-Spain in the Middle Ages: processes of formation and political integration. The Reconquest. Art and culture of the Christian kingdoms and of Al-Andalus.

Topic 3.-Spain in the Modern Age. The monarchy of the Reyes Católicos. The big geographical discoveries. Renaissance, Century of Gold, and Illustration. Big figures of Spanish art.

Topic 4.-Spain in the Contemporary Age. Industrial development. Our recent history. Knowledge, valuation, and respect for the most relevant cultural and artistic manifestations of the historical and cultural heritage.

Topic 5.- Social, political, and territorial organization of Spain. The Autonomous Communities: the capital and most important cities of every Autonomous Community. Institutions of government: municipal, autonomous, and of the State.

Topic 6.-Spain in Europe. The European Union. European institutions, competences, and responsibilities.

Topic 7.-The population in Spain and in the European Union. Natural and migratory movements. The demographic, cultural, and economic importance of the migrations in the current world.

Topic 8.-Economy. The production of goods and services. The activity and functions of the company. The consumption in contemporary society. Advertising and consumption. Economic activities. The sectors of activity: primary, secondary, and tertiary.

Topic 9.-Physical and Political Relief of Spain and Europe.

THEMATIC BLOCK II: EXPERIMENTAL SCIENCES

Unit 10. Cosmology. The vision of the universe from classical antiquity to present day. The conquest of space: technological development and space exploration.

Unit 11. The solar system and the orbital movements of the Earth and the Moon. Orientation temporary space.

Unit 12. The Atmosphere. Main functions of the atmosphere. Meteorology. Climate change.

Unit 13. The Hydrosphere. Water distribution on Earth. Physico-chemical properties of water. Water (hydrologic) cycle. Pollution and water treatment.

Unit 14. Geodynamics of the Earth planet. From the continental drift to the plates tectonics. Earthquakes, volcanism, and orogeny.

Unit 15.-The Man and the Earth. The anthropogenic impact on the planet. Water and Energy. The sustainable development and its environmental management.

IV.B.-Training activities

Type	Title
Group work	Group presentations (projects, sessions, practices, so on.)
Lectures	Commentary on readings, texts, and so on.
Lectures	Article reviews.
Test and/or exams	Midterm written exam.
Test and/or exams	Final written exam.

V.-Student workload

Theoretical sessions	40
Resolution of exercises, problems, case studies, etc.	14
Practical sessions in experimental, technological and clinical laboratories, fieldwork, etc.	0
Tests and/or exams	6
Academic tutorials	30
Related activities: conferences, seminars, etc.	18
Preparation of theoretical sessions and self-study	20
Preparation of practical tasks, exercises, case studies, projects, etc.	30
Preparation for tests and/or exams	22
Total student workload	180

VI.-Methodology and academic programme

Type	Period	Content
Theoretical sessions	Week 1 to Week 15	Theoretical-practical presentation, during class time, of the main contents of each subject. Students will be able to ask questions. In general, the teacher will provide the student with the notes or bibliography through the virtual classroom to prepare or complement the subject syllabus.
Other activities	Week 1 to Week 15	Voluntary field trips and visits to environmental education centres, museums, open field.
Group work	Week 1 to Week 15	Presentation of work in the classroom and/or by means of a virtual tool. At the beginning of the course and, at the discretion of each teacher, the modality for this presentation will be specified.
Other activities	Week 1 to Week 15	Commentaries on readings, texts, films or documentaries
Other activities	Week 1 to Week 15	Drafting of article reviews



Individual work	Week 1 to Week 15	Students will carry out individual and/or team practices related to the topics covered in class. Each teacher will determine the type of work (problem solving, seminars, activities, case studies) to be carried out, activities, case studies) at the beginning of the course.
Academic tutorials	Week 1 to Week 15	Face-to-face tutorials for the resolution of doubts and the exchange of opinions, doubts, etc.

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

The assessment for this course is carried out through continuous assessment and is divided into two components: Social Sciences and Experimental Sciences (50% each). To pass the course through continuous assessment, students must obtain a passing grade in each component. Once both components have been passed, the final grade will be calculated as the average of the two marks. If a student fails one or both components through continuous assessment, they must take the final examination for the failed component(s). If, after the final examination, one of the components is still failed, the final grade for the course will be failed, although the grade obtained in the component that has been passed will be retained for the extraordinary examination session in June.

In general, assessment by Content Blocks is structured as follows:

SOCIAL SCIENCES BLOCK: To calculate the final grade for the SOCIAL SCIENCES block (BLOCK I), the following grading scheme will be applied. Please note that it is essential to pass the written examinations and submit all compulsory assignments/practical activities in order to obtain a Pass grade or higher.

Assessment System (Social Sciences)

- Written Midterm Examination: 50% of the final grade. Minimum passing mark: 5/10. Reassessable. Taken midway through the semester.
- Written Final Examination: 40% of the final grade. Minimum passing mark: 5/10. Reassessable. Taken during the ordinary examination period.
- Group Practical Assignments: 10% of the final grade. There is no minimum mark required; however, completion of all assigned group activities is compulsory. Not reassessable. These activities will be carried out throughout the semester. **(Students granted academic exemption may complete these assignments individually).**

Experimental Sciences Block

- Midterm examination (Part 1): Worth 40% of the final grade. Reassessable. Scheduled around Week 12.
- Final examination (Part 2): Worth 40% of the final grade. Reassessable. Taken during the ordinary examination period.
- Article Reviews and Adapted Assignments: Worth 10% of the final grade. Not reassessable. Completed throughout the semester.
- Group presentation: Worth 10% of the final grade. Not reassessable. Conducted throughout the semester. **(Students granted academic exemption may complete this task individually).**

GENERAL ASSESSMENT CRITERIA FOR THE ENTIRE COURSE

The following aspects will be considered as part of the assessment criteria:

- 1. PLAGIARISM:** All university assignments and coursework must be original. Whenever external sources or excerpts are used, they must be properly cited. Cases of total or partial plagiarism will result in the assignment not being assessed and will not be eligible for reassessment. Likewise, any other form of academic misconduct, such as submitting work that has not been completed by the student, if detected, will result in a failure grade for the course.
- 2. SPELLING AND WRITTEN EXPRESSION:** The assessment of assignments, coursework, and examinations will consider not only the content but also all aspects that contribute to effective written communication, including formal presentation, the structure and organisation of ideas and content, correct spelling, punctuation, and overall language accuracy. In short, students are expected to demonstrate a standard of written expression appropriate to university level.
- 3. CLASS ATTENDANCE:** Attendance is compulsory, as is participation in the activities organized by the lecturer during class sessions. Mere attendance does not constitute an assessment criterion and is not graded in any way. The minimum attendance requirement (80%) only qualifies students for continuous assessment. Students who fail to meet this requirement will lose their entitlement to be assessed through the continuous assessment system.

Early assessment

Students may apply to bring forward to September the assessment corresponding to either the ordinary or the extraordinary examination session, provided that they meet the requirements established in the URJC Regulations on the Assessment of Learning Outcomes. The assessment method used in both the early ordinary and early extraordinary examination sessions will consist of: Individual coursework assignments (20%): Students must submit the individual assignments that would normally be completed throughout the semester. Comprehensive on-site examination (80%): Students must sit a face-to-face examination covering all course content, equivalent in scope and level to the partial examinations.



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) 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

Alonso, S. (Coord.), et al. (2010). *Didáctica de las Ciencias Sociales para la Educación Primaria*. Ed. Pirámide.

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Cooper, H. (2002). *Didáctica de la historia en la educación infantil y primaria*. Ed. Morata.

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Ramón y Cajal, S. (1991). *Reglas y consejos sobre investigación científica*. Espasa Calpe.

Santisteban, A., & Pagès, J. (Coords.). (2011). *Didáctica del conocimiento del medio social y cultural en la educación primaria*. Síntesis.

Scoffham, S., & Owens, P. (2017). *Teaching Primary Geography*. Bloomsbury.

Scoffham, S. (2016). *Teaching Geography Creatively* (2nd ed.). Routledge.

Smith, C. (2016). *History through Stories: Teaching Primary History with Storytelling*. Hawthorn Press.

Trepát, C. A., & Comes, P. (1998). *El tiempo y el espacio en la didáctica de las Ciencias Sociales*. Ed. Graó.

Velasco, P. (2012). *Guía del cielo 2012*. Procivell.

Zarzuela Aragón, J. (2005). *Excursiones para niños por la Sierra de Madrid*. Ediciones La Librería.

Consultation bibliography

IX.-Professors

Name and surname	MIGUEL PORTOLÉS REBOUL
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Department	Ciencias de la Educación
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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	1
Number of sexennia	0
No. of positive evaluations by Docencia	1
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Department	Ciencias de la Educación
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Category	Profesor/a Ayudante Doctor/a
Academic degree	Doctor
Person responsible for the subject	Yes
Tutorial timetable	Para consultar las tutorias póngase en contacto con el/la profesor/a a través de correo electrónico
Number of quinquennia	1
Number of sexennia	0
No. of positive evaluations by Docencia	2