

BASIC DETAILS:

Subject:	TEACHING NATURE, SOCIETY AND CULTURE (CONOCIMIENTO DEL MEDIO NATURAL, SOCIAL Y CULTURAL Y SU DIDÁC.)		
Id.:	32497		
Programme:	GRADUADO EN EDUCACIÓN INFANTIL. PLAN 2015 (BOE 17/08/2015)		
Module:	APRENDIZAJE DE LAS CIENCIAS DE LA NATURALEZA, DE LAS CIENCIAS SOCIALES Y DE LA MATEMÁTICA		
Subject type:	OBLIGATORIA		
Year:	3	Teaching period:	Primer Cuatrimestre
Credits:	6	Total hours:	150
Classroom activities:	68	Individual study:	82
Main teaching language:	Inglés	Secondary teaching language:	Castellano
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PRESENTATION:

This subject proposes basic didactic strategies in order that the students in the infantile stage approach the knowledge of the natural, social and cultural environment.

Future teachers will be trained to carry out small research on issues of scientific interest and reflect them in and out of the classroom, developing projects, learning units, workshops and didactic materials, in accordance with planning approaches focused on environmental knowledge.

PROFESSIONAL COMPETENCES ACQUIRED IN THE SUBJECT:

General programme competences	G01	Capacity to analyse and synthesise information from different sources.
	G03	Capacity to organise, plan and self-assess the work undertaken.
	G04	Capacity to apply information technologies critically and constructively as tools to promote learning.
	G07	Capacity for interpersonal communication in English (oral and written) at a minimum B2 level (per the Common European Framework of Reference for Languages) to adapt to the academic and professional requirements of the Degree.
	G09	Capacity to formulate social transformation proposals, considered ethically, based on democracy and basic rights.
	G10	Capacity to generate new ideas through initiative, innovation and creativity for effective adaptation to educational needs and the job market.
	G12	Capacity to self-assess, nurturing learning, scientific research, practice based on evidence and scientific and social progress.
Specific programme competences	E33	Know the scientific, mathematical and technological foundations of the curriculum at this stage as well as the theories on acquisition and development of the corresponding material learned.
	E34	Know didactic strategies to develop numerical representation and notions of spatial, geometric and logic development.
	E35	Understand mathematics as sociocultural knowledge.
	E36	Know the scientific method and foster scientific thinking and experimentation.
	E37	Acquire knowledge about the evolution of thought, customs, beliefs and social and political movements throughout history.
	E38	Know the eureka moments in the history of the sciences and techniques and their importance.
	E39	Create didactic proposals connected to scientific, technical, societal and sustainable development interaction.
	E40	Promote interest in and respect for nature and the social and cultural environment through suitable didactic projects.
	E41	Foster the first steps into information and communication technologies.
Regulated profession competences	P01	Know the objectives, curricular content and assessment criteria for Preschool Education.
	P02	Promote and enable learning in early childhood - from an overall inclusive perspective - of the various cognitive, emotional, psychomotor and volitional aspects.
	P03	Design and regulate learning areas, in the context of diversity, which cleave to the individual educational needs of the pupils, gender equality and respect for human rights.
	P05	Know how to systematically observe learning and coexistence in action and reflect on both.
	P09	Effectively address language learning situations in multicultural and multilingual situations.

	P10	Express oneself orally and in writing and master the use of different expressive techniques.
	P11	Know the educational implications of information and communication technologies and, particularly, television in early childhood.
	P15	Accept that teaching is a matter of getting better and adapting to scientific, pedagogical and social changes over the course of the career.
	P17	Reflect on classroom practices to innovate and improve teaching. Acquire the habits and skills to learn alone or with others and foster this among the pupils.
Learning outcomes	R01	Acquire basic training in the key contents of the Experimental and Social Sciences.
	R02	Know the most typical means, materials and resources in the teaching-learning of Nature, Society and Culture at Preschool level.
	R03	Plan activities that awaken scientific curiosity in the children.
	R04	Foster interesting skills and a respect for the environment through didactic projects.
	R05	Assess the influence of Science and technology in the social and cultural development of societies

PRE-REQUISITES:

Having a B1 level is a pre-requisite of this degree programme. If you consider you have not reached this level yet, it is your responsibility to reach the level required through independent study and language support courses, either at the Instituto de Lenguas Modernas or other centres.

Some activities could be developed in Spanish (such as possible cultural or school visits, revision of Spanish legislation, etc.). It is recommended that, Erasmus students who are going to take the course, have a basic level of Spanish language.

SUBJECT PROGRAMME:

Observations:

Activities such as Learning Spaces, conferences, visits to centres of cultural interest or schools will be programmed throughout the semester, depending on the availability of resources and the activities of the Faculty.

Subject contents:

1 - What are the Experimental and Social sciences?
1.1 - An introduction to the didactics of Experimental and Social Sciences.
1.2 - Physical and social environment as a starting point for early learning.
1.3 - Background and current legislation: LOE y LOMCE.
2 - Thinking and expressing space in the infant school classroom.
2.1 - Understanding of space in children under 6 years.
2.2 - Developments in the apprehension of space in the child.
2.3 - How to teach a child to place himself/herself and objects in space?
3 - Learning the time in infant school.
3.1 - How children perceive time.
3.2 - Developments in the apprehension of time in children.
3.3 - How to teach a child to place himself and objects in time?
4 - The knowledge of the environment and nature.
4.1 - Which experimental sciences should be taught in Early Childhood Education?
4.2 - Teaching science: the scientific method.
4.3 - The student as a scientist and / or apprentice.
5 - Understanding of the sociocultural environment.
5.1 - The development of social knowledge.
5.2 - Understanding of society.
5.3 - Construction of economic and political notions.
6 - Innovation and research in Experimental and Social Sciences.
6.1 - Educational innovation.
6.2 - How to innovate in teaching Experimental and Social Sciences? Innovative resources.
6.3 - Research in Education through Experimental and Social Sciences.

Subject planning could be modified due unforeseen circumstances (group performance, availability of resources, changes to academic calendar etc.) and should not, therefore, be considered to be definitive.

TEACHING AND LEARNING METHODOLOGIES AND ACTIVITIES:

Teaching and learning methodologies and activities applied:

Master classes / lessons: theoretical concepts of the subject will be explained and discussed. The student should complement the information through reading research papers, class notes, practical exercises and tutorials. These materials will be available in the PDU.

Practical examples could be included for each topic: students will be based on short texts that will be made available in the PDU. It is recommended that students take these texts and read them before the theoretical classes in order to better follow the explanation.

In addition, during the theoretical explanations, formative assessments will be carried out using mobile devices: they will answer questions related to the theory that will be formulated using a computer application. These formative evaluations do not affect the student's final grade. Students will have the complete questionnaires for each chapter, which facilitates self-evaluation. The applications that will be used for this purpose will be Kahoot! and Mentimeter; these tools allow the incorporation of gamification into the classroom through the use of ICT. These activities have a dual function: on the one hand, they will help the students themselves to evaluate their level of knowledge acquired during the master classes, immediately and anonymously, encouraging participation in the classroom; in the other hand, they allow the teacher to know the level of learning and to detect possible deficiencies.

Practical classes / workshops and resolution of exercises: the aim of these classes is to link the theoretical knowledge developed during the classes with practical examples. The teaching-learning methodology, that will be implemented during these sessions, will be varied, and will include the case study method, role-playing, research through centres of interest, environmental research and global work projects. Likewise, the activities will combine tasks oriented to auditory, visual and kinaesthetic learning.

This teaching-learning proposal is organized around the four pillars of education promoted by UNESCO: learning to know, learning to do, learning to live together and learning to be. In this way, the different activities will cover each of these blocks; it is estimated that two activities will be carried out for block.

Students will usually work in small groups of three people (groups are advised to remain stable throughout the course). At least one computer or mobile device per group is recommended. Some practices could be done individually.

During the first part of the class, students will prepare the activity related to the topic being taught at that time. In groups (or individually) they should analyze a text or situation, answer the questions, investigate or expand on the information offered, carry out role plays... this will depend on assigned tasks.

In the second part of the class, students will proceed to the resolution, pooling and discussion of the exercise.

At the end of the class, students should prepare a summary and a reflection on the exercises performed, which should be included in their portfolio for subsequent correction, monitoring and evaluation by the teacher, being objects of evaluation.

Group coursework: this task is compulsory and must be done by all students. At the beginning of the course the instructions will be made available to the student, general temporalization and evaluation rubric. At least three tutorials are recommended.

Group work will consist of the preparation of a teaching unit on some of the subjects of natural, social

or cultural sciences. In order to facilitate cooperative learning and the acquisition of competences, students, in addition to the delivery of written work, must make an oral presentation and carry out an individual self-assessment of the whole learning process.

Tutorials: these sessions will solve the doubts that arise during the course, both individual and in groups, and supervise the evolution and development of group coursework and portfolio.

Others activities: it is expected that the course will be complemented with other activities, such as Learning Spaces, conferences, visits to museums or centres of cultural interest. These will be programmed throughout the semester, depending on the availability of resources and the activities of the Faculty.

Student work load:

Teaching mode	Teaching methods	Estimated hours
Classroom activities	Master classes	24
	Practical exercises	10
	Practical work, exercises, problem-solving etc.	18
	Participation in seminars, conferences etc.	8
	Assessment activities	8
Individual study	Tutorials	3
	Individual study	30
	Individual coursework preparation	9
	Group coursework preparation	10
	Research work	9
	Compulsory reading	7
	Portfolio	14
Total hours:		150

ASSESSMENT SCHEME:

Calculation of final mark:

Group coursework:	20 %
Final exam:	40 %
Oral presentation:	10 %
Portfolio:	30 %
TOTAL	100 %

*Las observaciones específicas sobre el sistema de evaluación serán comunicadas por escrito a los alumnos al inicio de la materia.

BIBLIOGRAPHY AND DOCUMENTATION:

Basic bibliography:

Aranda Hernando, A. M. Didáctica del conocimiento del medio social y cultural en educación infantil. Madrid: Síntesis, 2003.

Ashbrook, P. Science is simple. Over 250 activities for pre-schoolers. Beltsville, USA: Gryphon House, 2014.

Fernández-Manzanal. R. y Bravo, M. Las ciencias de la naturaleza en la Educación Infantil (manual y cuadernillo de actividades). Madrid: Ediciones Pirámide, 2015.

Rivero Gracia, M. P. [coord.]. Didáctica de las Ciencias Sociales para Educación Infantil. Zaragoza: Mira Editores, 2011.

Zarrillo, J. Teaching Elementary Social Studies: Principles and Applications. USA: Pearson, 2011.

Recommended bibliography:

Chaill, C. y Britain, L. The Young Child as Scientist: A Constructivist Approach to Early Childhood Science Education. USA: Longman, 1997.

Cooper, H. History in the Early Years (Teaching & Learning in the Early Years). London: Routledge. 2002.
Feliu Torruella, M. y Jiménez Torregosa, L. [coords.]. Ciencias sociales y educación infantil (3-6). Cuando despertó el mundo estaba allí. Barcelona: Editorial Graó, 2015.
Foong Kwin Tan, Q. Our Learning Journey as Eco Explorers. USA: Amazon Media, 2014.
Gun, J. Talleres de ciencias para la educación infantil. Córdoba (Argentina): Editorial Brujas, 2015.
Murphy, J. 100+ Ideas for Teaching History (Continuum One Hundreds). London: Bloomsbury Academic. 2007.
Oliver, A. Creative Teaching: Science in the Early Years and Primary Classroom: Science in the Early Years Classroom. USA: David Fulton Publishers, 2006.
Tonda Monllor, E. M. La didáctica de las Ciencias Sociales en la formación del profesorado de Educación Infantil. Alicante: Publicaciones de la Universidad de Alicante, D.L., 2001.
Vega, S. Ciencia 3-6. Laboratorios de ciencias en la escuela infantil. Barcelona: Graó, 2012.
Wilson, C. Effective approaches to connect children with nature. Wellington: Department of Conservation, 2011.

Recommended websites:

A complete Bug Guide.	http://bugguide.net/node/view/15740
The Academy of Natural Sciences.	http://www.ansp.org/
Resources for the classroom.	http://www.educapeques.com/recursos-para-el-aula/
Young children (journal).	http://www.naeyc.org/yc/
The Natural History Museum, London (Library and archives).	http://www.nhm.ac.uk/our-science/departments-and-staff/library-and-archives.html