



Universidad de Jaén

Faculty of Human Sciences and Education

Natural sciences in daily life: didactic implications

2024-2025

Grado en Educación Infantil
Grado en Educación Primaria



CREA



Guías docentes UJA

Horarios de tutorías

Llamamientos PAU

Syllabus 2024-25 - 12013002 - Natural Sciences in Daily Life: Didactic Implications (Ciencias de la naturaleza en la vida cotidiana: implicaciones didácticas)

Caption

- Level 1: Tutorial support sessions, materials and exams in this language
- Level 2: Tutorial support sessions, materials, exams and seminars in this language
- Level 3: Tutorial support sessions, materials, exams, seminars and regular lectures in this language

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Full version (Spanish)

English

DEGREE: Grado en Educación infantil (12013002)

FACULTY: FACULTY OF HUMAN SCIENCES AND EDUCATION

DEGREE: Grado en Educación primaria (12113023)

FACULTY: FACULTY OF HUMAN SCIENCES AND EDUCATION

ACADEMIC YEAR: 2024-25

COURSE: Natural Sciences in Daily Life: Didactic Implications

SYLLABUS

1. COURSE BASIC INFORMATION

NAME: Natural Sciences in Daily Life: Didactic Implications

CODE: 12013002 (*) **ACADEMIC YEAR:** 2024-25

LANGUAGE: English **LEVEL:** 2

ECTS CREDITS: 6.0 **YEAR:** 4 **SEMESTER:** SC

2. LECTURER BASIC INFORMATION

NAME: OCAÑA MORAL, MARÍA TERESA

DEPARTMENT: U108 - DIDÁCTICA DE LAS CIENCIAS

FIELD OF STUDY: 205 - DIDÁCTICA DE LAS CIENCIAS EXPERIMENTALES

OFFICE NO.: D2 - 345 **E-MAIL:** mocana@ujaen.es **P:** 953211974

WEBSITE: -

ORCID: <https://orcid.org/0000-0001-6944-8178>

LANGUAGE: - **LEVEL:** 2

3. CONTENT DESCRIPTION

- Science, technology and society relations in Early Childhood Education.
- Natural sciences in the close environment of the child.
- Scientific literacy in Early Childhood Education's classroom.
- Scientific explanations of everyday phenomena: application in Early Childhood Education's classroom.
- Didactic transposition of everyday phenomena for Early Childhood Education students.

4. COURSE DESCRIPTION AND TEACHING METHODOLOGY

"Natural Sciences in everyday life: didactic implications", is a subject that is developed through theoretical and practical sessions based on large group teaching (theoretical sessions, didactic outings, debate, discussion, ...), medium group (practical sessions) and small group (group tutorials, debate and discussion, ...). In addition, interested students have an established schedule to attend individualized tutorials.

Theoretical sessions are presented in a fundamentally expository way, but enhancing the interaction with the students.

The practical sessions are compulsory and face-to-face and are held in Science Didactics department teaching laboratories (A2-318 and A2-319).

Students with special educational needs should contact the Student Attention Service (Servicio de Atención y Ayudas al Estudiante) in order to receive the appropriate academic support

5. ASSESSMENT METHODOLOGY

The evaluation of the subject "Natural sciences in everyday life: didactic implications" is carried out as a basic process of monitoring and evaluating the work and learning carried out by students during the teaching period.

Students must demonstrate their theoretical and practical knowledge in relation to:

- The adequate acquisition of the fundamental theoretical-practical knowledge of the most basic aspects of Natural Sciences for the development of science, technology and society relationships in Early Childhood Education classroom.
- Detailed knowledge of current trends in science teaching and learning Nature Sciences in the close environment of the child at the Early Childhood Education level.
- The appropriate development of basic scientific procedures that allow obtaining scientific explanations of everyday phenomena: application in the Early Childhood Education's classroom.
- The timely knowledge about the fields that interrelate the Sciences with other areas of knowledge and the didactic transposition of everyday phenomena.
- Proper management of current trends and sources of documentation and information related to learning, teaching and didactic research for correct scientific literacy in the Early Childhood Education classroom.
- Autonomy at work. Organization, planning and development of appropriate interventions in the Early Childhood Education classroom.
- Active use of reflection and innovation in science teaching.
- Elaboration of quality, rigorous, adequate in terms of format, synthetic, analytical and critical works.

The information about the intended performance will be obtained:

In relation to the conceptual domain of matter:

- Formal correction of the answer
- Clarity in the exposition
- Language correction

In relation to laboratory practices:

- Formal correction of the answers
- Quality, creativity and rigor of individual and group works
- Proper handling of specific laboratory instruments
- Adequate interpretation of observed phenomena through the application of scientific theories

The final grade takes into account the entire teaching-learning process and consists of two parts:

Theoretical Part: realization of a written test.

Practical part: attendance to the practices, delivery of the notebook and exam. The completion of the practices is mandatory to obtain 100% of the final grade.

The extraordinary call consists of an exam of theoretical and practical contents.

6. BOOKLIST ([Accede a la bibliografía en el descubridor de la Biblioteca](#))

MAIN BOOKLIST:

- Bubbles, Rainbows and Worms: Science Experiments for Preschool Children. Edition: -. Author: Sam Ed Brown. Publisher: GRYPHON HOUSE ([Library](#))

7. SUSTAINABLE DEVELOPMENT GOALS

Salud y bienestar

Educación de calidad

Igualdad de género

Producción y consumo responsables

Paz, justicia e instituciones sólidas

DETAILED INFORMATION

The contents and skills of this subject integrate the following Sustainable Development Goals (SDGs):

- SDG 3. Ensure healthy lives and promote well-being for all at all ages.
- SDG 4. Ensure inclusive, equitable and quality education and promote learning opportunities throughout life for everyone.
- SDG 5. Achieve gender equality and empower all women and girls.
- SDG 12. Guarantee sustainable consumption and production patterns.
- SDG 16. Promote just, peaceful and inclusive societies.

8. VIRTUAL / CLASSROOM TEACHING SCENARIO

Methodology and activities		
Training activities	Format (face-to-face / online)	Teaching methodology: Description
15 hours: - Practical sessions of two hours each one - Practical works	Face-to-face, 10% Online 90%	Attendance at practical sessions and at explanation and presentation of works and resolution of doubts. Moreover, a constant communication with students and simultaneous generalized mailings using the platform and technological tools belonging to the Gsuite of the University of Jaén, will be remained.
25 theory sessions about the contents of the program	100 % online.	Regarding the theory, the lessons are of two complementary modalities: 1.-First, classes and resolution of doubts are developed, through videoconferences, online, synchronous teaching 2.- Secondly, asynchronous methodologies are used: forums to resolve doubts and ask questions. Moreover, a constant communication with students and simultaneous generalized mailings using the platform and technological tools belonging to the Gsuite of the University of Jaén, will be remained.
Tutorials	Face-to-face / online	Face-to-face / online

Assessment system: ordinary and extraordinary call				
Aspect	Criteria	Instrument	Format	Percentage
S1: Attendance and participation in activities	- Participatory attitude and interest - Mandatory	- List of students - Teacher's class notes - Systematic observation	Face-to-face / online	10%
S2: Theoretical concepts of matter	- Formal correction of the answers - Clarity in the exposition - Language correction	- Exam - Class discussions - Class works	Online	50%
S4: Laboratory / field practices / use of ICT tools	- Formal correction of the answers - Quality, creativity and rigor of individual and group works - Proper handling of specific laboratory instruments - Adequate interpretation of observed	- Exam - Practical activities	Online exam Practical work online	40%

	phenomena through the application of scientific theories		
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9. VIRTUAL TEACHING SCENARIO

Methodology and activities		
Training activities	Format (online)	Teaching methodology: Description
15 hours: - Practical sessions of two hours each one - Practical works	100 % online.	Attendance at practical sessions and at explanation and presentation of works and resolution of doubts. Moreover, a constant communication with students and simultaneous generalized mailings using the platform and technological tools belonging to the Gsuite of the University of Jaén, will be remained.
25 theory sessions about the contents of the program	100 % online.	Regarding the theory, the lessons are of two complementary modalities: 1.-First, classes and resolution of doubts are developed, through videoconferences, online, synchronous teaching 2.- Secondly, asynchronous methodologies are used: forums to resolve doubts and ask questions. Moreover, a constant communication with students and simultaneous generalized mailings using the platform and technological tools belonging to the Gsuite of the University of Jaén, will be remained.
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DATA PROTECTION CLAUSE (on line exams)

Institution in charge of data processing: Universidad de Jaén, Campus Las Lagunillas, s/n, 23071 Jaén

Data Protection Delegate: dpo@ujaen.es

Purpose: In accordance with the Universities Law and other national and regional regulations in force, carrying out exams and assessment tests corresponding to the courses students are registered in. In order to avoid frauds while sitting the exam, the exam will be answered using a videoconference system, being able the academic staff of the University of Jaén to compare and contrast the image of the person who is answering the exam with the student's photographic files. Likewise, in order to provide the exam with evidential content for revisions or claims, in accordance with current regulation frameworks, the exam will be recorded and stored.

Legitimacy: compliance with legal obligations (Universities Law) and other national and regional regulations currently in force.

Addressees: service providers who are the owners of the platforms where the exams are carried out and with whom the University of Jaén has signed the corresponding data access contracts.

Storage periods: those established in current in force regulations. In the specific case of exam videoconference recordings, not before the examination records and transcripts are closed or the exam can still be reviewed or challenged.

Rights: you can exercise your right of access, amendment, cancellation, opposition, suppression, limitation and portability by sending a letter to the postal or electronic address indicated above. In the event that you consider that your rights have been violated, you may submit a complaint to the Andalusian Council for Transparency and Data Protection www.ctpdandalucia.es

CLASS RECORDING CLAUSE PERSONAL DATA PROTECTION

Person in charge: Universidad de Jaén, Paraje Las Lagunillas, s/n; Tel.953 212121; www.ujaen.es

Data protection delegate (DPO): TELEFÓNICA, S.A.U. ; Email: dpo@ujaen.es

Procedure aim: To manage proper recordings of teaching sessions with the aim of facilitating learning process under a multimodal and/or online teaching

Period for record storage: Images will be kept during legal term according to regulations in force

Legitimacy: Data will be managed according to legal regulations (Organic Law 6/2001, December 21, on Universities) and given consent provided by selecting corresponding box in legal admission documents

Data recipients (transfers or assignments): Any person allowed to get access to every teaching modality

Rights: You may exercise your rights of access, rectification, cancellation, portability, limitation of processing, deletion or, where appropriate, opposition. To exercise these rights, you must submit a written request to the Information, Registration and Electronic Administration Service of the University of Jaen at the address above, or by e-mail to the address above. You must specify which of these rights you are requesting to be satisfied and, at the same time, you must attach a photocopy of your ID card or equivalent identification document. In case you act through a representative, legal or voluntary, you must also provide a document that proves this representation and identification. Likewise, if you consider that your right to personal data protection has been violated, you may file a complaint with the Andalusian Data Protection and Transparency Council www.ctpdandalucia.es

