

**COURSE DATA****Data Subject**

<b>Code</b>	33626
<b>Name</b>	Teaching natural sciences at nursery school
<b>Cycle</b>	Grade
<b>ECTS Credits</b>	6.0
<b>Academic year</b>	2022 - 2023

**Study (s)**

<b>Degree</b>	<b>Center</b>	<b>Acad. year</b>	<b>Period</b>
1304 - Degree in Preschool Education	Faculty of Teacher Training	4	First term
1324 - Degree in Preschool Education (Ontinyent)	Faculty of Teacher Training	4	First term

**Subject-matter**

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
1304 - Degree in Preschool Education	21 - Teaching natural sciences in preschool education	Obligatory
1324 - Degree in Preschool Education (Ontinyent)	21 - TEACHING NATURAL SCIENCES IN PRESCHOOL EDUCATION	Obligatory

**Coordination**

<b>Name</b>	<b>Department</b>
CANTO DOMENECH, JOSE RAFAEL	90 - Methodology of experimental and social sciences
LOZANO LUCIA, OSCAR RAUL	90 - Methodology of experimental and social sciences
SENDRA MOCHOLI, CRISTINA	90 - Methodology of experimental and social sciences



## SUMMARY

### English version is not available

Esta asignatura es obligatoria del título de Maestro/a de Educación Infantil. Tiene carácter cuatrimestral (6 créditos) y se imparte en el primer cuatrimestre del 4º curso.

Su objetivo fundamental es conseguir que los futuros docentes conozcan y utilicen herramientas didácticas específicas para la enseñanza de las ciencias naturales de una manera innovadora y adaptada a la etapa de educación infantil.

Esta asignatura está relacionada con:

- Ciencias Naturales para Maestros de 2º curso.
- Prácticas escolares II de 3º

## PREVIOUS KNOWLEDGE

### Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

### Other requirements

No existen

## OUTCOMES

### 1304 - Degree in Preschool Education

- Express oneself orally and in writing correctly and appropriately in the official languages of the autonomous region.
- Use information and communication technologies effectively as usual working tools.
- Analyse critically the most relevant issues in today's society that affect family and school education: social and educational impact of audiovisual languages and of screens; changes in gender and inter-gender relations; multiculturalism and interculturalism; discrimination and social inclusion and sustainable development. Also, carry out educational actions aimed at preparing active and democratic citizens, committed to equality, especially between men and women.
- Promote cooperative work and individual work and effort.
- Assume that teaching must be perfected and adapted to scientific, pedagogical and social changes throughout life.



- Know the processes of interaction and communication in the classroom.
- Recognise the identity of each educational stage and their cognitive, psychomotor, communicative, social and affective characteristics.
- Design, plan and evaluate teaching and learning classroom activities in multicultural and co-educational contexts.
- Know how to work as a team with other professionals within and outside the school to attend to each student, to plan the learning sequences and to organise work in the classroom and in the play space.
- Know and apply basic educational research methodologies and techniques and be able to design innovation projects identifying evaluation indicators.
- Understand that systematic observation is a basic tool that can be used to reflect on practice and reality, and to contribute to innovation and improvement in education.
- Identify and plan the resolution of educational situations that affect students with different abilities and different learning rates, and acquire resources to favour their integration.
- Know the scientific and technological principles of the curriculum of this stage as well as the theories on the acquisition and development of the corresponding learning. Know the scientific and technological principles of the curriculum of this stage as well as the theories on the acquisition and development of the corresponding learning.
- Know the scientific methodology and promote scientific thinking and experimentation.
- Know the most outstanding moments in the history of science and technology and their significance.
- Create teaching proposals in relation to the interaction between science, technology, society and sustainable development.
- Promote interest in and respect for the natural environment through appropriate educational projects.
- Promote experiences of initiation into information and communication technologies, value their contribution to improving learning and understand their implications for children's education.
- Design, plan and evaluate teaching and learning processes, both individually and in collaboration with other teachers.
- Stimulate sensory perception through multiple experiences with one's own body and in the natural environment as a basis for learning.
- Awaken interest in and curiosity for one's own body and for others' bodies, respecting differences. Develop autonomy, body care and awareness of gender differences.

#### **1324 - Degree in Preschool Education (Ontinyent)**

- Express oneself orally and in writing correctly and appropriately in the official languages of the autonomous region.
- Use information and communication technologies effectively as usual working tools.
- Analyse critically the most relevant issues in today's society that affect family and school education: social and educational impact of audiovisual languages and of screens; changes in gender and inter-gender relations; multiculturalism and interculturalism; discrimination and social inclusion and sustainable development. Also, carry out educational actions aimed at preparing active and democratic citizens, committed to equality, especially between men and women.



- Promote cooperative work and individual work and effort.
- Assume that teaching must be perfected and adapted to scientific, pedagogical and social changes throughout life.
- Know the processes of interaction and communication in the classroom.
- Recognise the identity of each educational stage and their cognitive, psychomotor, communicative, social and affective characteristics.
- Design, plan and evaluate teaching and learning classroom activities in multicultural and co-educational contexts.
- Know how to work as a team with other professionals within and outside the school to attend to each student, to plan the learning sequences and to organise work in the classroom and in the play space.
- Know and apply basic educational research methodologies and techniques and be able to design innovation projects identifying evaluation indicators.
- Understand that systematic observation is a basic tool that can be used to reflect on practice and reality, and to contribute to innovation and improvement in education.
- Identify and plan the resolution of educational situations that affect students with different abilities and different learning rates, and acquire resources to favour their integration.
- Know the scientific and technological principles of the curriculum of this stage as well as the theories on the acquisition and development of the corresponding learning. Know the scientific and technological principles of the curriculum of this stage as well as the theories on the acquisition and development of the corresponding learning.
- Know the scientific methodology and promote scientific thinking and experimentation.
- Know the most outstanding moments in the history of science and technology and their significance.
- Create teaching proposals in relation to the interaction between science, technology, society and sustainable development.
- Promote interest in and respect for the natural environment through appropriate educational projects.
- Promote experiences of initiation into information and communication technologies, value their contribution to improving learning and understand their implications for children's education.
- Design, plan and evaluate teaching and learning processes, both individually and in collaboration with other teachers.
- Stimulate sensory perception through multiple experiences with one's own body and in the natural environment as a basis for learning.
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**LEARNING OUTCOMES****English version is not available****WORKLOAD**

ACTIVITY	Hours	% To be attended
Theoretical and practical classes	60,00	100
Study and independent work	90,00	0
<b>TOTAL</b>	<b>150,00</b>	

**TEACHING METHODOLOGY****English version is not available****EVALUATION****English version is not available****REFERENCES****Basic**

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- Freire, H. (2011). Educar en verd. Idees per apropar els nens i les nenes a la natura. Barcelona, Graó.
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- Lovell, K. (1999). Desarrollo de los conceptos básicos matemáticos y científicos en los niños. Madrid, Morata.
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- Real Decreto 95/2022, de 1 de febrero, por el que se establece la ordenación y las enseñanzas mínimas de la Educación Infantil. BOE núm. 28, de 2 de febrero de 2022. [Junt a la legislació autonòmica vigent].
- Tonucci, F. (1995). Con ojos de maestro. [Capítulo 4. El niño y la ciencia, pp.85-107]. Buenos Aires, Troquel.

#### **Additional**

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- Escoles Bressol i Parvularis Municipals de Reggio Emilia (2005). Els cent llenguatges dels infants. Barcelona, Rosa Sensat.
- Hoyuelos, A. (2006). La estética en el pensamiento y en la obra de Loris Malaguzzi. Barcelona, Octaedro - Rosa Sensat.
- Kellert, S. (2015). Build nature into education. Nature, 523, 288-289.
- Ritscher, P. (2013). Escola slow. Pedagogia del quotidià. Barcelona, Rosa Sensat.
- Ritscher, P. (2013). El jardí dels secrets. Organitzar i viure els espais exteriors a les escoles. 3ª ed., Barcelona, Rosa Sensat.
- Van Manen, M. (2004). El tono en la enseñanza. Barcelona, Paidós.
- Vega, S. (2006). Ciencia 0-3. Laboratorios de ciencias en la escuela infantil. Barcelona, Graó.
- Vega, S. (2006). Ciencia 3-6. Laboratorios de ciencias en la escuela infantil. Barcelona, Graó.
- Vila, B. y Cardo, C. (2005). Material sensorial (0-3). Manipulación y experimentación. Barcelona, Graó.
- Yoon, J. y Onchwari, J.A. (2006). Teaching young children science: Three key points. Early Childhood Education Journal, 33(6), 419-423.