

# 26615 - Didactics: Physical and Chemical Media

#### Información del Plan Docente

Academic Year 2016/17

Academic center 107 - Facultad de Educación

202 - Facultad de Ciencias Humanas y de la Educación

301 - Facultad de Ciencias Sociales y Humanas

**Degree** 299 - Degree in Primary School Education

300 - Degree in Primary School Education 298 - Degree in Primary School Education

**ECTS** 6.0

Course 2

Period First semester

Subject Type Compulsory

Module --

1.Basic info

1.1.Recommendations to take this course

1.2. Activities and key dates for the course

2.Initiation

## 2.1.Learning outcomes that define the subject

In order to pass the course, student should be able to:

- 1. Demonstrate to have basic knowledge about the physical and chemical aspects of the environment and their application in primary education (the secondary school scientific knowledge is considered as the minimum required).
- 2. Write informs about the experimental activities carried out their learning.
- 3. Provide informed arguments and ideas based on scientific and educational criteria from the activities developed during the course, such as workshops and meetings about current topics in science education. Students also show the necessary communicative and reasoning skills in order to solve different educational situations, both practical and theoretical, during the course.
- 4. Design and communicate adequate learning proposals to primary level. Moreover, they should be able to integrate the different aspects learned along the subject in their proposals and justify their decisions.

### 2.2.Introduction

### Introduction to the subject

Primary physics and chemistry education is one of the two mandatory subjects, from the area of science education, which contributes to teacher training both in primary and preschool level.

This subject provides students with specific pedagogical content knowledge about the topics taught in chemistry and physics at primary level; the understanding of what makes the learning concepts easy or difficult for the students; and the conceptions and preconceptions that students usually bring into the classroom. In addition, It also pays attention to the different training needs encountered by preservice primary teachers in chemistry and physics education.



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This subject is characterized by its applicability at primary level.

## Contents of the subject

- 1. School curriculum of primary education and the chemical and physical aspects about the environment and their contribution to the development of the educative competences.
- 2. Teaching models and features of children's scientific thinking
- 3. Relevant chemical and physical content in primary education and their specific teaching and learning difficulties.
- 4. Experimental activities and relevant site visits for teacher education in primary school.
- 5. Analyzing, planning and designing learning proposals in chemical and physical primary education.
- 6. Introduction of scientific current topics about chemical and physical aspects.
- 3.Context and competences
- 3.1.Goals
- 3.2. Context and meaning of the subject in the degree
- 3.3.Competences
- 3.4.Importance of learning outcomes
- 4.Evaluation
- 5. Activities and resources
- 5.1.General methodological presentation
- 5.2.Learning activities
- 5.3.Program
- 5.4. Planning and scheduling
- 5.5.Bibliography and recomended resources