Universidad Zaragoza

Academic Year/course: 2022/23

63244 - Design of Learning Activities for Physics and Chemistry

Syllabus Information

Academic Year: 2022/23
Subject: 63244 - Design of Learning Activities for Physics and Chemistry
Faculty / School: 107 - Facultad de Educación
Degree: 584 -
596 -
ECTS: 8.0
Year: 1
Semester: Second semester
Subject Type: Optional
Module:

1. General information

2. Learning goals

3. Assessment (1st and 2nd call)

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The learning process that has been designed for this subject is based on the following:
The development of the subject will include lecture sessions, active learning methodologies, v
In general, it is intended that the subject is developed in a way:
• Practice
• Participatory
• Cooperative-collaborative
• Criticism
• Reflective
• Creative

4.2. Learning tasks

The program offered to the student to help him achieve the expected results comprises
the following activities ...
• Theoretical expositions
• Practical work in Physics and Chemistry classes
• Reflection activities in small and large groups
• Preparation of individual reports
• Group elaboration of some of the design and planning tasks
• Preparation of the didactic project
• Presentations of both individual and group work
The sessions will be face-to-face and will be held in a computer room, in the laboratory or th

appropriate visits to other centers:
The organization of conferences or seminars with invited speakers that facilitate the acquisit

the competences of the subject will be considered.

Formative Activity	Nº Hours	% Presence
Master Classes	29	100%
Practice classes (Laboratory+ specials)	35 (30+5)	100%
Guided work	29	20%
Problem solving	16	100%
Evaluation Test	8	100%

4.3. Syllabus

The contents are structured around three blocks:

? Paradigms of the didactics of experimental sciences and their practical application: Conceptions about learning the contents of physics and chemistry. Characteristics of scientific thinking in adolescence. Didactic transposition of the contents of physics and chemistry raised from the educational needs of diverse students: Other approaches such as CTS (Science, Technology and Society) and perspectives, such as gender.

• Didactic Content Knowledge from a reflective practice of the teaching profession.
Importance of practical work and real examples of good teaching practices.
Use of a methodology for the design and planning of learning activities focused on the traini

needs of students, in the development of activities and in the creation of situations that pr

learning.

4.4. Course planning and calendar

The sessions are carried out during the second semester, at times and in classrooms that will

specified in due course on the centre's website.
The practical classes take place both in the laboratory and in outings to spaces of didactic
The assessable activities that must be reflected in the individual portfolio must be delivere

the deadlines agreed between the teaching staff and the students. In any case, the completed

portfolios will be delivered during the week prior to the end of the classes.
The date and time of the global test will be announced in advance through the website of the

the ADD.
Other details will be specified throughout the subject and will be announced both in the face

sessions and through the subject's website in the ADD.

The approach, methodology and evaluation of this guide is prepared to be the same in any teac

4.5. Bibliography and recommended resources

http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=63244&Identificador=C71850