

26631 - Didactics: Biological and Geological Media

Syllabus Information

Academic year: 2023/24

Subject: 26631 - Didactics: Biological and Geological Media

Faculty / School: 107 - Facultad de Educación

202 - Facultad de Ciencias Humanas y de la Educación

301 - Facultad de Ciencias Sociales y Humanas

Degree: 298 - Degree in Primary School Education

299 - Degree in Primary School Education

300 - Degree in Primary School Education

ECTS: 6.0

Year: 3

Semester: Second semester

Subject type: Compulsory

Module:

1. General information

what are the goals of this subject?

Develop students' skills to enable them to design, apply and evaluate teaching proposals that help in the understanding and explanation of biological and geological phenomena at the Primary Education levels.

what for?

Train future teachers for the scientific training of primary school students demanded by a society characterized by change and citizen participation in decision making.

how can we do it?

- Inquiring into biological and geological phenomena
- Arguing from different points of view
- Promoting self-employment

The approach of the subject is aligned with the Sustainable Development Goals and targets (SDGs) 4.7, 10.2, 11.4, 12.2, 13.3, 15.5, 15.8, of the United Nations 2030 Agenda (<https://www.un.org/sustainabledevelopment/es/>)

2. Learning results

1. To have a basic knowledge of the biological and geological aspects of the environment and its projection in Primary Education.
2. To relate the scientific foundations of the Primary Education curriculum as well as the theories on teaching and learning them.
3. To know the evolutionary development of the human body at school age.
4. To be able to report on the experimental activities carried out.
5. To contribute specific arguments or ideas based on scientific and didactic criteria in the seminars and debates of proposed by the faculty.
6. To show communicative skills and use reasoning and tools appropriate to the didactic situations that will be presented both in the theoretical and practical sessions of the subject.
7. To make and present didactic proposals appropriate to the educational level at which they are aimed for their application in Primary Education and which, in addition, include the different aspects dealt with in the theoretical and practical sessions.

3. Syllabus

- Didactics of Experimental Sciences as a discipline.
- The Nature of Science and Scientific Practices.
- The curriculum of Primary Education and the biological and geological aspects of the environment and its contribution to educational competences.
- Specific difficulties in teaching and learning biological and geological content.
- School research as a means to build and use scientific models.
- Questions and cognitive-linguistic skills in the science classroom.

4. Academic activities

Distribution of the training activities in the different centers where the subject is taught (the hours correspond to Huesca, Teruel

and Zaragoza, respectively),.

Master Class: 15, 15, 16 hours

Presentations where the theoretical references of the area of didactics of experimental sciences are presented.

Problem solving and case studies: 15:00, 18:00, 16:00

Small and large group activities where, mainly, the activities carried out in the course of the subject are analysed didactically. Presentation of work done by the student body.

Laboratory practices: 20, 20, 20 hours

Carrying out laboratory activities to understand biological and geological elements and phenomena.

Preparation of individual and/or group reports.

Special practices: 8, 3, 8 hours

Activities that involve leaving the school and visiting nearby natural areas (parks, museums, natural sites...) and that allow both an understanding of biological and geological aspects and didactic reflection on the educational potential of these areas.

Teaching and other activities: 20, 4, 25 hours

Group elaboration of some of the design and planning tasks.

Study: 69, 87, 62 hours

Assessment tests. 3, 3, 3 hours

5. Assessment system

Assessment tests.

Attendance to the theoretical-practical sessions and didactic outings.

Oral and written presentation of didactic proposals. Special value will be given to the design, its theoretical basis and clarity of exposition.

Preparation of reports based on the experimental activities. For the presentation of these reports it is mandatory to participate in the experimental activities and to attend the corresponding field trips.

Theoretical-practical final written test on the different contents covered in the subject.

Grading criteria and requirements to pass the subject:

1. 30% of the final grade: Attendance to the theoretical-practical sessions, field trips and other places of scientific interest and the elaboration of reports based on the experimental activities (10%). Oral and written presentation of didactic proposals (20%).

2. 70% of the final grade: Written test:

In order to average the two grades, the student must achieve at least 50% of the total score in each section section.

In the first week of the course, the teacher will communicate in writing or through the Anillo Digital Docente (ADD) the breakdown of the tasks included in the evaluation and their delivery schedule.

The dates of the written test will be available on the web page of the corresponding center.

Global test first and second call and 5th and 6th call:

In those cases in which participation and attendance to class activities has not been possible, students will have the option of presenting a similar work (together with the final written test) on alternative activities that will be set by the teaching staff in charge of the subject in each centre.

Finally, it must be taken into account that the Regulations of the Norms of Coexistence of the University of Zaragoza will be applicable to the irregularities committed in the evaluation tests by means of academic fraud, as well as the application of article 30 of the Regulations of the Norms of Evaluation of Learning in relation to irregular practices other than academic fraud.

In any case, as part of the evaluation, the teacher may request, at random, the oral defense of the test or assignment submitted in writing, for the verification of the grade.

The evaluation of students in the 5th and 6th convocation will be carried out by an examining board.