

63239 - Innovation and Classroom Research in Biology and Geology

Syllabus Information

Academic year: 2023/24

Subject: 63239 - Innovation and Classroom Research in Biology and Geology

Faculty / School: 107 - Facultad de Educación

Degree: 584 - Master's Degree in Teaching Compulsory Secondary Education
595 - Master's Degree in Teaching, specializing in Biology and Geology

ECTS: 4.0

Year: 1

Semester: Second semester

Subject type: Optional

Module:

1. General information

The objective of the subject is for students to acquire competencies for the continuous improvement of their teaching practice, through the implementation of innovation proposals and the evaluation of the results, initiation in educational research and permanent didactic updating within the framework of the subjects of Biology and Geology.

These approaches and objectives are aligned with the following Sustainable Development Goals (SDGs) of the United Nations Agenda 2030 (<https://www.un.org/sustainabledevelopment/es/>), in such a way that the acquisition of the learning results of the subject provides training and competence to contribute to some extent to their achievement: Goal 4: Quality education.

2. Learning results

1. Recognize, describe and evaluate innovative teaching proposals in the field of Biology and Geology, identifying the theoretical assumptions to which they respond and the problems related to teaching and learning that they try to solve.
2. Explain the most important approaches and methodologies to evaluate the educational activity in all its aspects and apply some of the most consolidated evaluation instruments to concrete teaching-learning situations.
3. Differentiate the different paradigms of educational research in the corresponding specialty and use them to evaluate research articles.
4. Know and effectively use bibliographic resources and documents related to educational innovation and research.

3. Syllabus

Block 1. Educational innovation in science teaching (Biology and Geology).

Block 2. Analysis, evaluation and discussion of educational actions and innovative experiences in the field of Biology and Geology carried out in Secondary and High School classrooms.

Block 3. Research in Science Didactics (Biology and Geology).

4. Academic activities

The subject is based on the following types of activities:

1. Master classes (16 hours). Sessions in which contents and issues related to the subject will be explained in single group.
2. Problem solving and case studies (24 hours). Sessions in which the resolution of problematic situations and practical cases are proposed.
3. Individual or group work as described in the section on evaluation and study hours of students (58 hours).

4. Assessment tests (2 hours)

5. Assessment system

It will consist of the evaluation of:

1- Dossier of activities and productions (60% of the final grade): the activities and/or productions of the students programmed during the development of the subject will be delivered throughout the term through the ADD and will be evaluated and graded according to criteria adapted to the typology of each one of them. These will be creative productions and/or simple reports that will reflect the results of the activities and/or critical reflection on them. The number and dates of such deliveries will be communicated during the first week of the term. In the event of not being able to actively participate, the student must take the written test scheduled during the exam period.

2- An innovation or research project (40% of the final grade).

This project will consist of the design and presentation of an original and well-founded proposal carried out as a group or individually. The instructions for the realization of the project will be communicated throughout the term through the ADD of the subject.

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

A grade of 5 out of 10 must be obtained in each of the sections in order to pass the subject.

Second and subsequent calls, including fifth and sixth: In the same terms as the global evaluation described above.

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.