Universidad Zaragoza

Academic Year/course: 2021/22

63137 - Literacy in natural sciences and mathematics: educational research approaches

Syllabus Information

Academic Year: 2021/22
Subject: 63137 - Literacy in natural sciences and mathematics: educational research approaches
Faculty / School: 107 - Facultad de Educación
Degree: 330 - Complementos de formación Máster/Doctorado
573 - Master's in Lifelong Lerning: Introduction to Research
ECTS: 3.0
Year: 573 - Master's in Lifelong Lerning: Introduction to Research: 1
330 - Complementos de formación Máster/Doctorado: XX

Semester: First semester
Subject Type: 330 - ENG/Complementos de Formación
573 - 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 methodology followed in this course is oriented towards achievement of the learning objectives. It is based on active participation, bibliographic research, teamwork, etc. that favors the development of communicative skills and critical thinking. A wide range of teaching and learning tasks are implemented, such as lectures, practical activities, autonomous work, tutorials and academic guidance.

Classroom materials will be available via Moodle.

Further information regarding the course will be provided on the first day of class.

4.2. Learning tasks

The course includes 3 ECTS organized according to:

- Lectures (0.4 ECTS): 4 hours.
- Practice sessions (0.5 ECTS): 5 hours. Check the official calendar (1st semester).
- Autonomous work (1.5 ECTS): 15 hours. Design of a research proposal in Science or Mathematics Education. During the last week of the course, its presentation and discussion will take place.
- Tutorials (0.5 ECTS): 5 hours. Throughout the semester and before the presentation of the final proposal.
- Global assessment (0.1 ECTS): 1 hour. (Deadline for the submission of individual work): check oficial calendar in http://educacion.unizar.es/inf_academica_Master_aprendizaje.html

4.3. Syllabus

The course will address the following topics:

Topic 1. Broaden the knowledge of didactic research in Science and Mathematics Education.

Topic 2. Examples of methodologies applied in Science and Mathematics Education: case studies, content analysis, investigation-action, history and nature of science, phenomenological and historic analysis. Links of interest, publications, meetings, conferences, etc.

Topic 3. Design elements in didactic research on Science and Mathematics Education.

4.4. Course planning and calendar

Academic calendar:

http://educacion.unizar.es/calendario_Master_aprendizaje.html

Assessment activities:

http://educacion.unizar.es/inf_academica_Master_aprendizaje.html

Classroom materials will be available via Moodle. Students have access using personal ID and Password.

https://moodle.unizar.es/

4.5. Bibliography and recommended resources

http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=63137