Universidad Zaragoza

Academic Year/course: 2021/22

26419 - Historical and Regional Geology & Geology of Spain

Syllabus Information

Academic Year: 2021/22
Subject: 26419 - Historical and Regional Geology & Geology of Spain
Faculty / School: 100 - Facultad de Ciencias
Degree: 296 - Degree in Geology
588 - Degree in Geology
ECTS: 9.0
Year: 3
Semester: Second semester
Subject Type: Compulsory
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 the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as lectures, which are essential for the understanding of the course and which are complemented with laboratory sessions and fieldwork.

Class attendance is fundamental to properly follow the course. Laboratory sessions attendance is necessary for the proper development of the work and the written manuscript. Finally, another complementary training of this course is fieldwork, where different geostructural units of the Iberian Peninsula are visited.

4.2. Learning tasks

This course is organized as follows:

- **Lectures**
- **Laboratory sessions.** The student must elaborate an individual assignment related to a topic assigned by the teacher. Searching of references in databases, critical reading and synthesis of information constitute the basis for writing their own assignment which should include: i) methodology, ii) discussion of selected data and iii) conclusions.
- **Fieldwork**. In every activity questions are proposed followed by a discussion on the issues proposed.

Teaching and assessment activities will be carried out on site for as long and as much as possible. This scenario could change if safety regulations related to the covid19 crisis recommended online activities.

4.3. Syllabus

Topic 1.- Introduction to the Historical Geology.?

Topic 2.- Earth?s beginnings: Origin of lithosphere, atmosphere and hydrosphere.?

Topic 3.- Precambrian: Evolutionary stages; Palaeogeographic reconstructions.
Topic 4.- Early Paleozoic: Stratigraphy. palaeogeography and climate. Caledonian Orogeny.
Topic 5.- Late Paleozoic: Stratigraphy, palaeogeography and climate; Variscan Orogeny.
Topic 6.- Mesozoic: Stratigraphy, palaeogeography and climate evolution.
Topic 7.- Cenozoic: Stratigraphy, palaeogeographic and climate; Alpine Orogeny.
Topic 8.- Synthesis of the Historical Geology.
Topic 9.- Structural domains of the Iberian Peninsula.
Topic 10.- Precambrian of the Iberian Massif.
Topic 11.- Paleozoic of northern sector of the Iberian Massif and its Variscan evolution.?
Topic 12.- Paleozoic of southern section of Iberian Massif and its Variscan evolution.
Topic 13.- Alpine Cycle in Iberia.
Tema 14.- Domains of the Pyrenees.
Topic 15.- Variscan and Permian-Mesozoic series of the Pyrennes.
Topic 16.- Sedimentary and tectonic evolution of the Pyrennes during the Alpine Orogeny.
Topic 17.- Domains of the Betic Cordillera.
Topic 18.-Mesozoic and Cenozoic evolution of the Betic Cordillera.
Topic 19. Intraplate chains of Iberia.
Topic 20.- Foreland and intra-mountain Cenozoic basins of Iberia.
Topic 21.- Origin of life. The Archean. Proterozoic and origin of metazoans.
Topic 22.- Life explosion during the Cambrian.
Topic 23.- Paleozoic. Life diversity in oceans and continents during the Paleozoic.
Topic 24.- Mesozoic. End-Cretaceous mass extinction: causes and consequences.
Topic 25.- Cenozoic. Mammal?s expansion. Quaternary: glaciations and their consequences.
Topic 26.- Magmatism in Spain**.**
Topic 27.- Variscan and Alpine mineral deposits in the Iberian Peninsula.

4.4. Course planning and calendar

Laboratory sessions will start on the second week of the second semester.
Oral presentation of the assignment will be in May.
Fieldwork report deadline will be during the following week to the field trip.

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course will be provided on the first day of class or please refer to the Faculty of Sciences and Earth Sciences Department websites (https://ciencias.unizar.es, https://cienciastierra.unizar.es) and Moodle.

4.5. Bibliography and recommended resources

http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=26419