

Academic Year/course: 2021/22

## 26431 - Geomorphological and Geoenvironmental Mapping

### Syllabus Information

**Academic Year:** 2021/22

**Subject:** 26431 - Geomorphological and Geoenvironmental Mapping

**Faculty / School:** 100 - Facultad de Ciencias

**Degree:** 296 - Degree in Geology  
588 - Degree in Geology

**ECTS:** 5.0

**Year:** 4

**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 methodology followed in this course is oriented towards the achievement of the learning objectives. It favors the production of geomorphological and geoenvironmental mapping. A wide range of teaching and learning tasks are implemented, such as practice sessions, fieldwork and autonomous work and study.

Students are expected to participate actively in the class throughout the semester.

Classroom materials will be available via Moodle. These include the course syllabus, a repository of complementary mapping information and aerial photographs used in class, as well as other course-specific learning materials.

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

#### 4.2. Learning tasks

This is a 5 ECTS course organized as follows:

- **Practice sessions** (3 ECTS: 30 hours). Three-hour sessions that take place every week in room 7 (Building C) aimed to produce geomorphological, active processes and homogeneous land units mapping documents. Students are provided in advance with task guidelines for each session.
- **Fieldwork** (1 ECTS: 10 hours). Five-hour sessions that take place on the field aimed to i) the recognition of the local landscape including both erosive and accumulative landforms, ii) the description of surficial geological deposits and iii) the identification of active geomorphic processes. Students are provided in advance with task guidelines for each session.
  - Selected study area is located in the Iberian Range, Ebro Basin or Pyrenees.
- **Autonomous work and study** (1 ECTS: 10 hours). This learning task is aimed to study of regional and thematic papers and to prepare the final geomorphological and geoenvironmental report. This report will be evaluated in the case of classroom teaching.

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

The course will address the following topics:

#### Practice sessions

- Topic 1. Geomorphological mapping
- Topic 2. Geomorphic processes mapping
- Topic 3. Homogeneous geomorphic land units mapping
- Topic 4. Introduction to ArcGIS software use

#### Field work

- Topic 5. Geomorphological field work in the study area

### 4.4. Course planning and calendar

Provisional course planning:

- Topic 1 will be studied from week 1 to 5.
- Topic 2: week 6.
- Topic 3: week 7.
- Topic 4: week 8 to 10.
- Topic 5: trips 1 and 2.

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://cienciatierra.unizar.es>) and Moodle.

### 4.5. Bibliography and recommended resources

[http://biblos.unizar.es/br/br\\_citas.php?codigo=26431&year=2020](http://biblos.unizar.es/br/br_citas.php?codigo=26431&year=2020)