

26409 - Geomorphology

Syllabus Information

Academic year: 2023/24

Subject: 26409 - Geomorphology

Faculty / School: 100 - Facultad de Ciencias

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

ECTS: 8.5

Year: 2

Semester: Annual

Subject type: Compulsory

Module:

1. General information

Geomorphology is an indispensable tool to approach the study of the processes that act on the land surface and that interact to a greater extent with human beings. The analysis of modelling and surface formations helps to reconstruct the recent past, to understand the current dynamics of the processes affecting the surface and to make predictions about their activity in the future. It is therefore a discipline with great potential for the understanding and solution of many of the geological problems that affect our society. In the approach of the subject, special attention is paid to the elaboration and interpretation of geomorphological cartographies, since it is understood that they are the basis of any geomorphological study. On the other hand, we consider that it is highly beneficial for the students, in view of their professional projection, to enhance their ability to collect, analyse and communicate geomorphological information.

These approaches and objectives are aligned with the Sustainable Development Goals (SDGs) of the 2030 Agenda of the United Nations (United Nations (<https://www.un.org/sustainabledevelopment/es/>), insofar as geomorphology is a tool that makes it possible to visualize information and spatial distribution of different phenomena that can reflect and analyse the degree of attainment of the SDG 1,2,3,4,5,6,7,10,12,13,14,15,16 and 17.

2. Learning results

The learning objectives will allow:

To know and know how to identify the main morphologies and surface formations, as well as the processes and factors involved in their genesis.

To be able to elaborate and interpret geomorphological maps and reconstruct the geomorphological evolution of a specific area through them .

To transmit orally and in written form knowledge, hypotheses and interpretations on geomorphological aspects.

To be able to relate and integrate the contents of Geomorphology with those of other disciplines of Geology.

3. Syllabus

I. Introduction to Geomorphology

Concept of Geomorphology and History of Geomorphology

Basic concepts and theoretical principles

II. Lithostructural geomorphology

Lithostructural Geomorphology and Structural Modelling

Geomorphology and Plate Tectonics

Volcanic and igneous geomorphology

Granitic geomorphology

Karst Geomorphology

III. Non-zonal geomorphic systems

Meteorization

Forms and processes on slopes: Introduction, Alluvial fans, Glacis or Pediments

Fluvial geomorphology

Coastal geomorphology

IV. Climatic geomorphology

Glacial forms and processes

Periglacial forms and processes

Forms and processes in arid and semiarid zones

Forms and processes in humid tropical zones

Geomorphology and climate change

V. Applied Geomorphology

4. Academic activities

Master Classes: 40 hours

Problems and cases: 14 hours

Seminars: 6 hours

Special practices: 25 hours

Study of the subject: 112.5 hours

Assessment tests. 6 hours

5. Assessment system

Continuous evaluation: *Each of these parts must be approved separately.

-Written test on the basic knowledge of Geomorphology acquired in the lectures, seminars and practical sessions .

This grade will represent 60% of the final grade of the subject.

-Work in theoretical seminars. Elaboration of a written report and the subsequent oral presentation and defence of a bibliographic work on some of the topics proposed by the teacher.

It is mandatory to attend at least 75% of the presentations. In the evaluation of these works, the written text will be valued with 60% and the oral presentation with 40%.

This grade will represent 15% of the final grade of the subject.

-Preparation of cartographies and reports in office practices and seminars. The final practice grade will be the sum of 66.6% of the office practices and 33.3% of the practical seminar grade.

The practical seminars will be evaluated as follows: cartography (60%) + legend (10%) and report (30%).

The final grade for the practices will be the exam that will take place at the end of the practice period and whose overall grade will be the sum of cartography (60% + legend (10%) and report (30%).

This grade will represent 25% of the final grade of the subject.

Global test: Pursuant to the provisions of Article 9 of the Regulation of Learning Assessment Standards (agreement of December 22, 2010 of the Governing Council of the University of Zaragoza), all students have right to a global assessment test in the subject. In subjects with continuous evaluation, students who do not have chosen this type of evaluation, those who do not pass the subject by this procedure, as well as those who wish to improve their grade, may take the global evaluation test. In any case, the best of the grades obtained shall prevail.