

**Geomorphology**

Code: 101615  
ECTS Credits: 6

Degree	Type	Year	Semester
2501002 Geography and Spatial Planning	OB	2	2

**Contact**

Name: Joan Manuel Soriano López  
Email: JoanManuel.Soriano@uab.cat

**Use of Languages**

Principal working language: catalan (cat)  
Some groups entirely in English: No  
Some groups entirely in Catalan: Yes  
Some groups entirely in Spanish: No

**Prerequisites**

Very important recommendation: have the approved credits of the subjects of Physical Geography and Cartography.

**Objectives and Contextualisation**

Objectives of the subject: Recognition of forms and processes that give rise to the modeling of the surface area from the deepening of the knowledge of geology, topography and climate. Through theoretical and practical work and field trips.

Training objectives: Basic training

Learning geoforms at different levels of scale: Local, regional and planetary.  
Introduction to the structural and climatic components of relief, and models of general explanation.  
Recognition and analysis of relief from the topographic map, photointerpretation and geological information.  
Introduction to field and laboratory work in geomorphology.  
Synthesis of the theoretical and practical aspects in the realization of the geomorphological map.

**Competences**

- Acting and intervening in the territory and its management, displaying the practical and experimental nature of geographical formations.
- Analysing and explaining today's world events from a geographical point of view.
- Analysing and interpreting landscapes.
- Applying fieldwork methods and techniques in order to acquire a direct knowledge of the territory.
- Developing critical thinking and reasoning and communicating them effectively both in your own and other languages.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.

- Students must develop the necessary learning skills in order to undertake further training with a high degree of autonomy.

## Learning Outcomes

1. Analysing the main dynamics of today's world from a geographical point of view.
2. Applying the knowledge of geology, topography and climate in order to plan a territory.
3. Carrying out oral presentations using an appropriate academic vocabulary and style.
4. Combining fieldwork methods and techniques in order to acquire a direct knowledge of the physical and human interrelationships taking place in the territory.
5. Defining the landscapes in relation to climate, waters, biogeography and geomorphology.
6. Describing today's world events in relation to the climate, water, biogeography and geomorphology.
7. Effectively communicating and applying the argumentative and textual processes to formal and scientific texts.
8. Identifying the ideas and expressing them in various languages with linguistic correctness.
9. Producing an individual work that specifies the work plan and timing of activities.
10. Solving problems autonomously.
11. Summarising acquired knowledge about the origin and transformations experienced in its several fields of study.

## Content

Theoretical contents of the dossier of notes and field trips:

Deformed sedimentary basin domain

Domain of chains and young mountain ranges

Domain of old ranges arranged

Relief on crystalline rocks

An interpretative framework. Models, morphostructural domains and types of structural reliefs

Private reliefs Fallen and volcanic reliefs

Structural components of relief in Catalonia

From the structure to the climate, from the relief to modeling, from the Baltic to Rio de Janeiro

The action of ice

The action of water

Morphogenetic systems and morphoclimatic domains

The cold zone and the high mountain lodge

The temperate zone

The arid domains

The warm area is not arid

Biostasis and Rexistasis

The climatic components of the relief in Catalonia

The relief under a system conception

Practical contents derived from field work:

Geological cutting of the north bank of the depression of the Vallès-Penedès and interpretation of the failed relief

Monoclonal complexes and folds of central depression

Molleic reliefs

Granite reliefs

Karst reliefs

Volcanic reliefs

## Methodology

The learning of geomorphology will be based on the inductive method of field, supported by the previous reading of the notes and the subsequent analysis and understanding of the collected data and observations made. Work is individual

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Theory and practice in the field	40	1.6	1, 2, 4, 5, 6, 9, 7, 3, 8, 10, 11
Theory and practice of photointerpretation	10	0.4	1, 2, 4, 5, 6, 9, 7, 3, 8, 10, 11
Type: Supervised			
Field work, geological cuts, geomorphological cartography and laboratory protocols	20	0.8	1, 2, 4, 5, 6, 9, 7, 3, 8, 10, 11
Type: Autonomous			
Preparation of the controls of the outputs and preparation of maps, cuts and other documents.	60	2.4	1, 2, 4, 5, 6, 9, 7, 3, 8, 10, 11

## Assessment

After each field trip, the contents will be evaluated through a report that, if applicable, will be re-evaluated at the end of the course. This re-evaluation will consist of the re-elaboration of the report from the corrections of the teaching staff. Assistance to field trips is indispensable to be assessed. Only non-attendance (totally justified) will be accepted in one of the six exits. Assistance to less than five outputs automatically implies an unrepresented. The part of Geomorphology Climática will be evaluated by means of a theoretical examination based on the notes corresponding to this part.

The copying or plagiarism of material, both in the case of works and in the case of examinations, constitute a crime that will be sanctioned with a zero to the activity. In the case of recidivism, the entire subject will be suspended. Let's remember that a "copy" is considered a work that reproduces all or most of the work of one or more partners. "Plagiarism" is the fact of presenting all or part of an author's text as its own, without citing the sources, whether in paper or in digital format. See UAB documentation on "plagiarism" at: [http://wuster.uab.es/web\\_argumenta\\_obert/unit\\_20/sot\\_2\\_01.html](http://wuster.uab.es/web_argumenta_obert/unit_20/sot_2_01.html)

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Evaluation of the contents of the 1st. field treep	12,5%	3	0.12	1, 2, 4, 5, 6, 9, 7, 3, 8, 10, 11
Evaluation of the contents of the 2nd. field treep	12,5%	3	0.12	1, 2, 4, 5, 6, 9, 7, 3, 8, 10, 11
Evaluation of the contents of the 3rd. field treep	12,5%	3	0.12	1, 2, 4, 5, 6, 9, 7, 3, 8, 10, 11
Evaluation of the contents of the 4th. field exit	12,5%	3	0.12	1, 2, 4, 5, 6, 9, 7, 3, 8, 10, 11
Evaluation of the contents of the 5th. field exit	12,5%	3	0.12	1, 2, 4, 5, 6, 9, 7, 3, 8, 10, 11

Evaluation of the contents of the 6th. field exit	12,5%	3	0.12	1, 2, 4, 5, 6, 9, 7, 3, 8, 10, 11
Review of the theoretical part	25%	2	0.08	1, 2, 4, 5, 6, 9, 7, 3, 8, 10, 11

## Bibliography

Notes on the subject (AMBRÓS, S & DOMINGO, M)

TARBUCK i LUTGENS (2005) *Ciencias de la Tierra. Una introducción a la Geología Física*, Madrid: Prentice Hall.

MIRÓ, M. i DOMINGO, M. (1985) *Breviario de Geomorfología*, Barcelona: Oikos-Tau.

GUTIÉRREZ ELORZA, M. (2001) *Geomorfología climática*, Barcelona: Omega.

GUTIÉRREZ ELORZA, M. (2008) *Geomorfología*, Madrid: Prentice Hall.

STRAHLER, A. (2000) *Geografía Física*, Barcelona: Omega.