Universitat Autònoma de Barcelona

2019/2020

Introduction to Physical Geography

Code: 104236
ECTS Credits: 6

Degree	Type	Year	Semester
2503710 Geography, Environmental Management and Spatial Planning	FB	1	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

Teachers

Marc Sanchez Morales

Prerequisites

Know how to read with a good reading comprehension and write in Catalan and / or Spanish language fluently, clear grammar constructions and without spelling mistakes
Be able to understand a short text in a foreign language (preferably English or French)
Know the four math rules smoothly and know how to use conversion factors
Know how to handle changes in metric, surface, capacity and volume units
Have basic notions about trigonometric functions (not trigonometry)

Objectives and Contextualisation

The general objective of the subject is an introduction to the study of the different elements that make up the physical environment and the processes and interactions that occur between them. Planet Earth is studied as a member of the solar system and as a globe and within the planet, the atmosphere, the hydrosphere, the lithosphere and the biosphere.

The training objectives are in:

The acquisition of a set of basic and grounded knowledge on each of the topics covered
the mastery of the most important concepts used in physical geography and the techniques of analysis and resolution of practical exercises.
Obtaining a vision of the whole and basic interpretative keys of the operation of the physical environment on a planetary scale and the identification of these processes at local level
The achievement of a good capacity to deal with geographic information, interpret it, represent it and transmit it
The training to establish significant connections between the different thematic aspects of the program and with other subjects

Competences

- Critically analyse the relationship between society and the region applying the conceptual and theoretical framework of geography.
- Demonstrate skills of self-analysis and self-criticism
- Integrate the different social and environmental disciplines with a view to describing and interpreting the spatial dynamics linked to social, economic and environmental change.
- Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.

Learning Outcomes

1. Demonstrate skills of self-analysis and self-criticism.
2. Differentiate the dimensions of the natural impact of anthropic actions.
3. Differentiate the geographical scale to understand the interactions between the physical and human environment.
4. Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.
5. Understand the main physical and environmental concepts.
6. Understand the planet earth as an integrated system of different physical dimensions.

Content

Block 1: INTRODUCTION

- Unit 01: Introduction to geography and physical geography

Block 2: THE SOLAR SYSTEM AND THE EARTH PLANET

- Unit 02: The globe. The geographic network

- Unit 03: The solar system and planet Earth

- Unit 04: The topographic map

Block 3: THE LITHOSPHERE

- Unit 05: Seismicity and tectonics of plates

- Unit 06: Introduction to petrology. Igneous or magmatic rocks

- Unit 07: Sedimentary rocks

- Unit 08: metamorphic rocks

Block 4: ATMOSPHERE

- Unit 09: The atmosphere. Composition and structure

- Unit 10: Insolation and energy balance

- Unit 11: Atmospheric pressure and winds

- Unit 12: Atmospheric humidity, clouds and precipitation

- Unit 13: Introduction to climatology

Methodology

Theory: lecture in the classroom.
Practical exercises: autonomous work, mandatory delivery by students following the indications of the teaching calendar
Field trips: compulsory, half-day and one-day trips. This last one associates a previous task by the students consisting of a work, of a collective nature (maximum 3 people per group) and subject to evaluation, related to the place to visit. During the exit each group will present its conclusions to the rest of the class.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Master class	50	2	6, 5, 1, 3, 2, 4
Tutorials	1.5	0.06	1
Type: Supervised			
Seminar on the ground	37	1.48	5
Type: Autonomous			
Preparation of work and practical exercises	55	2.2	6, 5, 1, 3, 2

Assessment

Theory tests of each unit or group of units, in total 6 tests (individual test)
Practice exams for each block, in total 3 exams (individual test)
Field trip work for 5 days (group)
To be evaluated, all the practices must be delivered within the established deadlines.
In order to be entitled to the recovery exam, students must have obtained an average grade of the subject equal to or greater than 3,5. In this case, all the suspended parts must be recovered up to a maximum of 3 tests (who has suspended more than 3 partial tests will not have the right to submit to the recovery and will have a suspense of the subject). Otherwise (if an average 3,5 were not obtained), the subject will be considered suspended
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
Attendance at all field trips is indispensable to be assessed, ergo assistance to any of them implies an unpresented.
The failure to complete one of the parts to be evaluated automatically implies an unpresented one.
Any particular case will be contemplated on the part of the teaching staff with the aim of guaranteeing an equitable treatment and avoiding the harm of the students

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Practical exams	40%	4.5	0.18	6, 5, 1, 3, 2, 4

Theoretical exam	40%	2	0.08	6, 5, 1, 3, 2, 4
Work related to the 4 day field exit	20%	0	0	6, 5, 1, 3, 2, 4

Bibliography

- COLOMER, R., FRANQUESA, E. (dir) (2003), Diccionari de Geografia Física, Termcat, Barcelona (disponible per consultar per internet a http://www.termcat.cat/ca/Diccionaris_En_Linia/124)
- KING, C.A.M. (1984), Geografía Física, Oikos tau, Vilassar de Mar.
- LACOSTE, Y., GHIRARDI, R. (1983), Geografía General, Física y Humana. Oikos tau, Vilassar de Mar.
- LÓPEZ BERMÚDEZ, F.; RUBIO RECIO, J.M. & CUADRAT, J.M. (1992), Geografía Física. Madrid, Cátedra.
- MIRÓ, M. DE, DOMINGO, M. (1986), Medi Natural: Relleu. Los Libros de la Frontera, Barcelona.
- RIBA, O. (dir. (1997), Diccionari de Geologia, Enciclopèdia Catalana, Barcelona (disponible per consultar per internet a http://cit.iec.cat/dgeol/default.asp?opcio=0)
- ROSSELLÓ, V., PANAREDA, J.M. & PÉREZ (1994), Manual de Geografia Física, Universitat de València.
- STRAHLER, A.N. (1977), Geografía Física, Omega, Barcelona.
- STRAHLER, A.N. (1987), Geología Física, Omega, Barcelona.
- STRAHLER, A.N. & STRAHLER, A. (1989 o posterior), Geografía Física, Omega, Barcelona [manual de referència].
- TARBUCK, E., LUTGENS, F. (1999), Ciencias de la Tierra, Prentice Hall, Madrid.
- Self-elaboration material for the preparation of internships and the follow-up of the course, accessible through intranet (only available to students who have enrolled in the subject) at the address: https://cv.uab.cat/portada/ca/