



COURSE DATA

Data Subject

Code	33644
Name	Introduction to physical geography
Cycle	Grade
ECTS Credits	6.0
Academic year	2024 - 2025

Study (s)

Degree	Center	Acad. year	Period
1318 - Degree in Geography and the Environment	Faculty of Geography and History	1	First term

Subject-matter

Degree	Subject-matter	Character
1318 - Degree in Geography and the Environment	593 - Geography II	Basic Training

Coordination

Name	Department
CERDA BOLINCHES, ARTEMIO	195 - Geography
RUESCAS ORIENT, ANA BELEN	195 - Geography

SUMMARY

The course Introduction to Physical Geography presents the basic contents of Physical Geography and places special emphasis on i) the connections between the different spheres of the terrestrial system, and ii) the interaction between human activity and the natural of ecosystems. Introduction to Physical Geography systematically examines spatial patterns and interrelationships between physical elements on the earth's surface. Special attention is paid to the development of an integrative vision of the atmosphere, water, biota, terrestrial forms, and soils, as a continuum from the local to the global scale. Physical geography is not limited to examining the atmosphere, hydrosphere, lithosphere, and biosphere in isolation, but focuses on understanding the integration of these spheres of the natural world under human action. This subject is introductory and therefore does not require any special prior knowledge. Students are advised not to give up, but rather to promote, the study of languages, especially English. And it is suggested that the student carry out fieldwork (excursions) in order to get to know the territory and its people directly.



PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

No

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- Have capacity for analysis and synthesis.
- Have oral and written communication skills in one's own language and in a foreign language.
- Have computer skills related to the field of study.
- Be able to work independently.
- Be able to work in interdisciplinary teams.
- Show commitment to the values of gender equality, interculturality, equal opportunities, universal access for people with disabilities, the culture of peace, democratic values and solidarity.
- Be able to learn independently and show creativity, initiative and entrepreneurship. Be able to resolve unforeseen situations.
- Show motivation for quality, responsibility and intellectual honesty.
- Learn about physical geography.
- Be able to use cartography and geographic information systems.

At the end of the first semester, the subject Introduction to Physical Geography must have allowed the student to know the basic contents of Physical Geography, with special emphasis on the connections between the different spheres of the terrestrial system, and the interaction between human activity and the natural dynamics of ecosystems.

DESCRIPTION OF CONTENTS

1. Introduction: scales and systems of the natural environment

Spatial and temporal scales of the natural environment. Interrelationships between the physical elements of the Earth. Natural systems and human action. Climate change throughout the geological history of the Earth. The evolution of the Earth and humanity in the last 13000 years. A global vision of the Planet.



2. The climatic bases. Planet's energy balance, precipitation, temperature and winds.

Planet energy balance. Solar and terrestrial radiation. The role of general circulation and ocean currents in energy distribution. General circulation of the atmosphere. Distribution of precipitation, temperature and wind. Atmospheric dynamics. Air masses. Low and high pressures

3. The global hydrological cycle

The global hydrological cycle. Large reservoirs on the planet and exchange flows. Precipitation, distribution and temporary changes. The role of vegetation in the hydrological cycle. Infiltration and runoff. Water in the aquifer. Marine hydrology.

4. Internal structure and terrestrial dynamics

Internal and dynamic structure of the earth's crust. The rock cycle. The configuration of ocean continents through geological eras. Geological chronology.

5. Soils and biomes of the Earth

Soil formation. Large soil units on the planet. The vegetation. Large Earth biomes: properties, dynamics and alterations.

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	30,00	100
Other activities	15,00	100
Classroom practices	15,00	100
Study and independent work	30,00	0
Readings supplementary material	15,00	0
Preparation of evaluation activities	15,00	0
Preparing lectures	30,00	0
TOTAL	150,00	

TEACHING METHODOLOGY

The teaching of the contents of the subject is supported by four aspects:

1) Theory: the face-to-face classes will consist of 45 minutes dedicated to the presentation of the basic knowledge of the subject. In the last 15 minutes practical examples of impacts of human activities on natural processes will be shown. Students will have to review in the recommended textbook of the the lesson to be delivered in the next class, in order to confirm that all their doubts are clarified during the teacher's explanation.



- 2) Practical exercises will consist in one-hour sessions. In these sessions the teacher will explain techniques, methods and how to perform the exercises. All practical exercises must be handed in in order to take the final exam.
- 3) Complementary activities: consist of field work outings. Attendance is mandatory and will be part of the ongoing assessment.
- 4) Preparation and completion of a final theoretical exam.

EVALUATION

The evaluation is based on three parts:

Written tests: there will be a written test of the theoretical contents of the subject (50%). The practices will be done in class in person. At the end of each class there will be a control of the attendance and the comprehension of the practice by means of a questionnaire (40%). The evaluation of the attendance to the field work (complementary activities) will be done by means of the Field Book that will make each student before, during and after the field work (10%).

REFERENCES

Basic

- Doerr, A.H. 1990. Fundamentals of Physical Geography. Dubuque, Brown, 378 pp.
- López Bermúdez, F., Rubio, J.M. y Cuadrat, J.M. 1992. Geografía Física. Madrid, Cátedra, 594 pp
- Rosselló, V.M., Panareda, J.M. y Pérez, A. 1994. Geografía Física, Valencia, Universitat de València, 438 pp.
- Strahler, A.N. y Strahler, A.H. 1989. Geografía Física. Barcelona, Omega, 550 pp.
- Tarbuck, E., Lutgens, F. y Tasa, D. 2009. Earth. An Introduction to Physical Geology: International Edition. Oxford University Press, 657 pp.
- McNeil, John, R. 2003. Algo nuevo bajo el sol. Historia medioambiental del mundo en el siglo XX. Madrid, Alianza Editorial, 503 pp.
- Tortosa, P. 2011. De viatge pel País Valencià. Al segle XXI i en el marc de la sostenibilitat. Carena editors, Valencia 134 pp.
- Bryson, B. 2005. Una breve historia de casi todo. RBA, Barcelona, 625 pp.
- Lomborg, B. 2003. El Ecologista esceptico. Espasa, Madrid, 632 pp