

Case Study: Geography Techniques

Code: 101591
ECTS Credits: 6

Degree	Type	Year	Semester
2501002 Geography and Spatial Planning	FB	1	1

Contact

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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

There are no prerequisites.

Objectives and Contextualisation

Estudi de Cas: Tècniques en Geografia is in the first course of Grau de Geografia i Ordenació del Territori.

This subject offers a basic introduction to the representation of data in Geography, to describe and analyze the territorial phenomena. The subject gives the resolution of specific tasks an approximation to the resolution of specific tasks of description or analysis. For each specific task, the appropriate methods of data analysis (graphical, statistical or cartographic) are presented systematically, together with the necessary basic concepts and application cases.

The objectives of the subject are:

- Capacity to solve basic tasks of analysis and presentation of data (visualization and graphical description, statistics and cartography) to describe and characterize territories or natural and social phenomena that take place in the territory.
- Provide the necessary conceptual, methodological and technical background for subjects or regional subjects, as well as for the most advanced instrumental subjects in the treatment and analysis of geographical information.

The subject covers the conceptual, methodological and technical aspects to solve practical works of geographical analysis:

- Concepts about the nature of analysis and geographic information.
- Methodology of approach, documentation, operational design, implementation and presentation of results of a project.
- Compilation of data, their recording and manipulation by spreadsheets, and their organization through databases.
- Resolution of the needs of the exploration of the information, and of description and classification of the territories or phenomena studied, through techniques of graphic representation, description and statistical classification and cartographic representation.

Concepts of visual communication and graphic design are necessary for the elaboration of effective graphics or cartographic documents for visualization, analysis and presentation of data.

Competences

- Applying fieldwork methods and techniques in order to acquire a direct knowledge of the territory.
- Developing the specific abilities related to the knowledge of the working techniques, specially the ones related to the collection, analysis, treatment and cartographic expression of geographical information, as well as the techniques referring to the fieldwork.
- Mastering the necessary theoretical knowledge in order to pose geographical problems in an integrated way and combining a generalist approach with a specialised analysis.
- Respecting the diversity and plurality of ideas, people and situations.
- 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 collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.

Learning Outcomes

1. Analysing the main dynamics of today's world from a geographical point of view.
2. Contrasting and comparing relevant geographical data.
3. Developing the specific abilities of fieldwork, observing and preparing the corresponding reports.
4. Engaging in geographical debates respecting the other participants' opinions.
5. Interpreting and producing cartographic documents of geographical information.
6. Obtaining, treating and analysing geographical data.
7. Posing problems about physical, economic, social and cultural diversity of territories applying knowledge of regional geography.
8. Summarising acquired knowledge about the origin and transformations experienced in its several fields of study.
9. Understanding the physical and human relationships from the direct knowledge of the territory.

Content

Block 1. DATA ANALYSIS IN GEOGRAPHY

1. Methods of geographical analysis
2. Geographical information
3. Fomts of geographic data

Block 2. VISUALIZATION AND DESCRIPTION OF GEOGRAPHICAL DA

4. Methods and statistical graphs of thematic description
5. Graphical methods and statistics for exploring thematic relations
6. Diagrams with their own name
7. Graphical and statistical methods of thematic classification
8. Cartographic methods of visualization and spatial description

Block 3. COMMUNICATION AND PRESENTATION OF RESULTS

9. Graphic design elements
10. Format and means of presentation of results

Methodology

The subject consists of 3 blocks of different content, nature and intensity, which have different development dynamics.

Block 2 - Representation methods

Block 2 is the main core and the subject's thickness (approximately 75%). It is a totally practical block and each topic is developed through a set of units divided into a variable number of tokens, one for each specific method, grouped into thematic groups or sections of the unit.

Each card includes the definition of the necessary concepts, the exposition of the method (origin, purpose, application, description, variants, utility and bibliographical references) illustrated with examples, a case or detailed example of the step-by-step procedure, and Exercises, both learning and consolidation.

The chips are short and self-contained, in order to be able to work independently, but they can presuppose previous chips and therefore usually require the sequential development of the group of chips in each section and each unit. In all the units, the sequence of work will be indicated by the teacher.

Blocks 1 and 3 - Cross-sectional knowledge

In addition to the methodological units (Block 2), there are units of a transversal nature. Block 1, dedicated to putting data analysis methods in the context of analysis and geographic information (approx. 15%), and Block 3, designed to provide graphic design resources (10% approx.) . The units of these two transversal blocks are not developed sequentially or by whole units, but are introduced when required by the development of Block 2.

The development of units of the transversal block 1, general concepts, and 3, of graphic design resources, is also made from notes of reduced extension, organized in charts.

In the different examples gender issues will be taken into account.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Classes	45	1.8	1, 9, 4, 7
Type: Supervised			
Course work and exercises	25	1	2, 3, 5, 6, 4
Course work tutorial	3	0.12	3, 7, 8
Type: Autonomous			
Course work and exercises	42	1.68	3, 5, 6, 7
Own study	29	1.16	9, 5, 6, 8

Assessment

EVALUATION

The evaluation activities are the following:

1 - Exercises to follow the continuous evaluation of the contents.

Assessment of the exercises: The formal aspects, the relevance of the response that demonstrates the achievement of the degree of knowledge about the subject, the resolution, representation and the interpretation of the results, as well as the correct accomplishment of the calculations.

2 - Course work is where the knowledge acquired during the semester is applied and its public presentation is made.

Assessment of the course work: the formal aspects, the approach of the objective and the variables of analysis, use of the methodologies of graphic representation and analysis, development and resolution of the problems raised and public defense of the work.

The hours of the exercises and of the work of course are included in the supervised activities and of autonomous work.

3 - Examinations and Questionnaires to consolidate the theoretical and applied knowledge about Geography Techniques.

The continuous evaluation makes the delivery of all the learning activities obligatory to be able to pass the subject. To do half must have at least 5 in each learning activity (exercises, questionnaires and course work). Otherwise that part will have to be reassessed.

If the exam is not approved with a 5, it will not be the average with the other notes.

The exercises delivered after the deadline will have a maximum score of 5.

In order to be eligible for examination it is MANDATORY to have submitted all the exercises. The delivery may not be made after the examination date. In the case of not making the deliveries, the student will not be able to submit to the exam.

The total or partial copy of a practice is 0. The recidivism of the copy will result in the suspension of the subject.

The delivery of 70% of the course activity will be Suspense. Those who do not reach 70% will have a non-valuable

RE-EVALUATION

The recovery of those evaluation activities that have been suspended will be carried out, it is not possible to present if they have not been evaluated previously.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Course work, elaboration and oral presentation	15%	1	0.04	1, 2, 9, 5, 6, 7, 8
Exam	50%	3	0.12	1, 7, 8
Exercices	25%	0	0	1, 2, 9, 3, 5, 6, 4, 7, 8
Questionnaires	10%	2	0.08	1, 2, 9, 3, 5, 6, 4, 7, 8

Bibliography

The basic study texts are the notes of the units of the subject, available in the network, which contain the mentioned bibliography and possible readings of extension.

To complement or extend the materials of the course, some basic manuals of frequent use are:

References about statistics and cartography in spanish :

Cortizo Álvarez, T. (1998) *Los gráficos en geografía*. Gijón: Tria-ka.

Ebdon, D. (1982) *Estadística para geógrafos*. Vilassar de Mar: Oikos-Tau.

Estebáñez, J. y Bradshaw, R.P. (1978) *Técnicas de cuantificación en geografía*. Madrid: Tebar Flores.

Gutiérrez Puebla, J.; Rodríguez, Rodríguez V. y Santos Preciado, J.M. (1995) *Técnicas cuantitativas: Estadística básica*. Vilassar de Mar: Oikos-Tau.

Raso, J.M.; Martín Vide, J. y Clavero P. (1987) *Estadística básica para ciencias sociales*. Barcelona: Ariel.

References about statistics and cartography in english :

Matthews, H. and Foster, I. (1989) *Geographical Data: Sources, Presentation and Analysis*. Oxford: Oxford University Press. 140 p.

Mitchell, A. (1999) *The ESRI Guide to GIS Analysis. Volume 1: Geographic Patterns and Relationships*. Redlands (California, USA): Environmental Systems Research Institute, Inc. 186 p.

Monmonier, M. (1993) *Mapping It Out: Expository Cartography for the Humanities and Social Sciences*. Chicago (Illinois, USA): The University of Chicago Press. 301 p.

Walford, N (1994) *Geographical Data Analysis*. Chichester (UK): John Wiley & Sons, Ltd. 446 p.