Universitat de Lleida

DEGREE CURRICULUM

MOUNTAIN CARTOGRAPHY

Coordination: VILA RECIO, MARC

Academic year 2022-23

MOUNTAIN CARTOGRAPHY 2022-23

Subject's general information

Subject name	MOUNTAIN CARTOGRAPHY
Code	12439
Semester	2nd Q(SEMESTER) CONTINUED EVALUATION
Typology	

Degree	Course	Character	Modality
Master's Degree in Mountain Areas Management	1	OPTIONAL	Blended learning

Course number of credits (ECTS)	3
Type of activity, credits, and groups	

Activity type	PRAULA	TEORIA
Number of credits	1.5	1.5
Number of groups	1	1

Coordination	VILA RECIO, MARC
Department	-SENSE DEPARTAMENT-
Important information on data processing	Consult this link for more information.

MOUNTAIN CARTOGRAPHY 2022-23

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
PAUL AGUSTI, DANIEL	daniel.paul@udl.cat	0	
VILA RECIO, MARC	marcvila@ub.edu	3	

Learning objectives

Know the different types of cartographic representations and getting involved in the world of Geographic Information Systems to process, analyze and visualize geographical information.

Competences

B10 That students possess the learning skills that allow them to continue studying
in a way that will have to be largely self-directed or autonomous (*)

CE1 Recognize, characterize and interpret the physical and human uniqueness of the mountain and explain the diversity of mountain territories.

CE4 Identify the essential cartographic sources and apply the Geographic Information Systems to the physical and social reality

Subject contents

1. Introduction to cartography

- The geographical map
- Cartography
- Maps functions
- Types of maps

2. Geographic Information Systems (GIS)

- Definition
- History
- GIS components
- GIS functions
- GIS questions
- GIS applications
- The concept of layer
- Geographic information
    - Characteristics
    - Components
- Introduction to ArcGis and data formats

3. Georeferencing and geocoding

- Direct or absolute georeferencing

- Indirect or relative georeferencing
- Geocoding by addresses
- The georeferencing of historical cartography

4. Scales and projections

- Scales
- Projections
    - Definition and basic concepts
    - Classification of projections

5. Data sources and symbolization

- Alphanumeric data sources
- Spatial data sources
- Data symbolization

6. Cartographic composition

- Graphic design. Basic principles
- Distribution of the elements

Methodology

Teaching methodol.	Educationa activities
Online theory	Reading written documentation/audiovisual/graphic
	Web-conference
	Webminar
Practices/online projects	Discussion forums
	Self-monitoring activities
	Report and project writing
	Practical problems
	Searching information
	Study case
Validation test	Presentation/validation test online

Development plan

Theoretical knowledge is introduced at the beginning of each practice and is assessed using virtual campus or Google questionnaires.

Technical and instrumental knowledge is learned through guided practice and reinforced with the execution of another autonomous practice. Both practices are individual and evaluable. It should be noted that all the knowledge acquired in the guided and autonomous practices are applied in the elaboration of a final project based on the elaboration of a thematic atlas of the mountain regions of Catalonia. The GIS software that will be used to develop all the practices and the final project will be the ArcGis.

All the data and materials of the subject will be available in the Virtual Campus. in case any data is not available it will be because in practice it is explained how to obtain it or previously worked on it.

To guide all learning on a weekly basis students will receive an email through the virtual campus informing them of the theoretical content they need to study, the practical content they need to learn and the results they need to deliver. In addition, students will be able to contact faculty to resolve questions via virtual campus messaging or via email. Response time, less than 48 hours.

Evaluation

The evaluation of the subject is based on:

- Form response and practical work: 60%
- Applied project: 40%

Bibliography

CARTOGRAPHY MANUALS

- Barber, P. (2006). El gran libro de los mapas, trad. en castellà. Barcelona: Paidós.
- Dent, B.; Torguson, J. and Hodler, T. (2008). Cartography: Thematic Map Design. 6th edition. Boston: WCB /McGrawHill.
- Joly, F. (1988). La cartografía, trad. en castellà. Vilassar de Mar (Barcelona): OikosTau.
- Rabella, J.M., Panareda, J.M., Ramazzini, G. (2011). Diccionari terminològic de cartografia. Enciclopèdia Catalana i Institut Cartogràfic de Catalunya, Barcelona. 417 p. Consultable a http://www.termcat.cat/ca/Diccionaris_En_Linia/197
- Robinson, A.H.; Morrison, J.L.; Muehrcke, P.C.; Kimerling, A.J. and Guptill, S.C. (1995). Elements of Cartography. 6th edition. New York: John Wiley and Sons

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- Bernhardsen, T. (1999). Geographic information system: An introduction. Nova York: John Wiley & Sons, 1999.
- Burrough, P. A. (1998). Principles of Geographical Information Systems. Oxford: Oxford University Press, 1998.
- Comas, David (1993). Fundamentos de los Sistemas de Información Geográfica. Barcelona: Ariel, 1993.
- Gutierrez, J.; GOULD, M. (1994). *SIG: Sistemas de Información Geográfica.* Madrid: Síntesis, 1994.
- Nunes, J. (2012). Diccionari terminològic de sistemes d'informació geogràfica. Enciclopèdia Catalana i Institut Cartogràfic de Catalunya, Barcelona. 551 p. Consultable a http://www.termcat.cat/ca/Diccionaris_En_Linia/197