Universitat Autònoma de Barcelona

2020/2021

Techniques of Regional Representation and Design

Code: 104258
ECTS Credits: 6

Degree	Type	Year	Semester
2503710 Geography, Environmental Management and Spatial Planning	OB	3	2

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

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

Teachers

Joan Cristian Padró García

Prerequisites

There are no prerequisites established for this course

Objectives and Contextualisation

The aim of the subject is to reach solid theoretical and methodological knowledge about the graphic representation of geographical information. This subject is an introduction to the domain of data visualization through the employment of open source and propietary softwares. The objective is not to learn about specific softwares, but to understand the fundamental issues in relation to the design of geographical information and the treatment of data. At the end of the course, the student will be able to apply the gathered knowledge not only to future subjects, but also to projects related to the labor market.

Competences

- Apply methods and techniques of quantitative, qualitative and field work analysis in the interpretation of territorial and environmental processes.
- Explain and represent territorial processes using statistical techniques, and graphic, cartographic and geographical information representations.
- Generate innovative and competitive proposals in professional activity.
- 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.
- 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. Generate innovative and competitive proposals in professional activity.
2. Interpret the statistical result of data analysis.
3. 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.
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 techniques for cartographic and infographic representations of data and regional processes.
6. Understand the main sources of information and scientific documentation related to regional and environmental processes.

Content

1. Basic concepts of layout and design.

2. Mapping layout and design.

3. Layout and design of statistical information.

4. Building of infographics and presentations.

Methodology

The course comprises three types of evaluable activities (autonomous, directed and supervised). During the course, the student will acquire knowledge and skills with the support of the teaching staff.

Autonomous activities include carrying out practices with specific programs.

The directed activities include the theoretical lectures.

Supervised activities involve the elaboration of a project supervised by professors.

In the event that tests or exams cannot be taken onsite, they will be adapted to an online format made available through the UAB's virtual tools (original weighting will be maintained). Homework, activities and class participation will be carried out through forums, wikis and/or discussion on Teams, etc. Lecturers will ensure that students are able to access these virtual tools, or will offer them feasible alternatives.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Theoretical lectures	50	2	6, 5, 2
Type: Supervised			
Project supervised by professors	25	1	6, 1, 4, 3
Type: Autonomous			
Carrying out practices using specific programs and recommended bibliography	75	3	6, 5, 2, 4, 3

Assessment

The evaluation of the subject will consist of three parts:

- The firs pat consist of practical exercises that will be delivered thorughout the course, with 15% of the total final grade. The practices must be delivered within the deadline set by the teacher. Late delivery will carry a penalty of 1 point.

- The second part includes the completion of a final project, which will make up 35% of the final grade.

- The third part comprises an exam, which will make up 50% of the final grade.

The evaluation of the subject will be continuous. To do the average, the students must have obtained a minimum of 5 points in each part.

Students who do not present the final project and do not do the exam will be evaluated as "Not evaluable".

In the event that the student carries out any type of irregularity that may lead to a significant variation in the grade of a certain act of evaluation, it will be rated 0, regardless of the disciplinary process that may result from it. In the event that several irregularities are verified in the acts of evaluation of the same subject, the final grade for this subject will be 0. Those evaluation acts in which there have been irregularities are not recoverable.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Exam	50%	0	0	6, 5, 1, 2, 3
Final project	35%	0	0	6, 5, 1, 2, 3
Practicals	15%	0	0	6, 5, 1, 2, 4, 3

Bibliography

Alcalde, I. (2015). *Visualización de la información: de los datos al conocimiento*. Barcelona: Editorial UOC.

Brewer, C. (2005). *Designing better maps: a guide for GIS users*. Redlands: ESRI Press.

Brewer, C. (2008). *Designed maps: a sourcebook for GIS users*. Redlands: ESRI Press.

Cairo, A. (2011). *El Arte funcional: infografía y visualización de información*. Madrid: Alamut.

Dent, B. D., Torguson, J. S., & Hodler, T. W. (2009). *Cartography: thematic map design*. Boston: McGraw-Hill Book.

Few, S. (2012). *Show me the numbers: designing tables and graphs to enlighten*. Burlingame: Calif: Analytics Press.

Levitus, C. C. (2011). *Visualize this: the flowing data guide to design, visualization, and statistics*. Indianapolis: IN.

Meirelles, I. (2014). *La Información en el diseño: introducción a las historias, las teorías y las mejores prácticas para la visualización eficaz de información*. Badalona: Parramon Art & Design.

Youtube. (n.d.). Level up! Powerpoint. Link: https://www.youtube.com/channel/UCMiSus4JUg0MvpKKrxCurPw/featured

During the course the recommendation of resources such as books, audiovisual resources, etc. will be expanded.