

## Methodology

Code: 42510  
 ECTS Credits: 9

Degree	Type	Year	Semester
4313300 Regional and Population Studies	OB	0	2

## Contact

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## Teachers

Joaquín Recaño Valverde

Antonio Miguel Solana Solana

## Use of Languages

Principal working language: catalan (cat)

## Prerequisites

It is recommended to have previously studied subjects related to research methodology (quantitative and qualitative).

It is essential to have completed at least one semester of a Statistics, Data Analysis or similar courses, with descriptive and inferential statistics. If these subjects or other related subjects have not been studied, the teaching staff will provide complementary and basic material to be able to follow the course.

## Objectives and Contextualisation

In this master's module, advanced methodological tools normally used in statistics and in qualitative research methods are treated. Apart from the formal aspects of compulsory knowledge and application in all research work, the subject is oriented towards effective and practical work with methodological instruments of both quantitative and qualitative types, and underlines the social and territorial focus. We work with methods of multivariate statistical analysis, database management, application of quantitative and qualitative methods, diagnosis and territorial proposal.

In addition to the aforementioned contents, this module has also a section where we will work on the methodology with which the Master's Final Works must be developed.

## Competences

- Apply critical concepts and advanced theoretical approaches to the study of land use and population
- Apply the different methodologies of geographic and demographic analysis at different territorial levels and population sizes
- Assess the impact of the framework laws, economic, political and social in the demographic and territorial dynamics.
- Continue the learning process, to a large extent autonomously.
- Design projects of urban and regional planning using figures and methodologies appropriate territorial scales

- Detect the complexity of territorial and demographic dynamics and recognize the most efficient management mechanisms, particularly in conflict situations
- Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
- Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
- Using the techniques of projection and mapping for the design of future scenes.

## **Learning Outcomes**

1. Apply the main techniques and processes for obtaining information on the qualitative analysis.
2. Continue the learning process, to a large extent autonomously.
3. Develop forecasts of future population dynamics using the main methods of population projection.
4. Distinguish the main methodological phases of territorial planning: analysis, diagnosis and proposals.
5. Evaluate the processes of territorial transformation and population using methodologies and tools related to theories of reference, able to measure the mechanisms of action and results.
6. Know the main laws and of urban planning and land development
7. Knowing the main methods of urban and regional planning.
8. Projecting the multidimensional nature of spatial analysis.
9. Recognizing the need to manage the territory in an integrated way and taking into account its various dimensions (social, political, economic, demographic, environmental and physical).
10. Recognizing the relationship between political and territorial dynamics legal system, population system.
11. Recognizing the usefulness of mapping and GIS for spatial planning.
12. Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
13. Understand the current concept of landscape in spatial planning.
14. Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
15. Use quantitative methods of analysis and territorial diagnosis.
16. Use sources of statistical information for territorial planning.
17. Using computer for demographic projections programario
18. Using indirect techniques of demographic estimation.

## **Content**

### Elaboration of the Master's Final Work (professor Jordi Nadal)

In these first sessions of the module, the guidelines to prepare the Master's Final Work will be developed

4 sessions of 2 hours:

- Structure of a Master's Final Work
- Bibliography
- Database
- Structure
- Layout

### Qualitative methodology (professors Miguel Solana)

The aim of these sessions will be to know the use and limitations of the main qualitative analysis techniques focused on territorial studies and the preparation of land use and planning proposals. The sessions will combine theoretical aspects with the implementation of practices with qualitative analysis software programs. The following aspects will be discussed in the sessions:

- a) The combination of methods and the use of the qualitative methodology within the mixed methodologies
- b) The use of participatory methodologies that involve the active participation of groups/social groups object of study in the definition of the investigation and the field work

- c) The main ethical aspects involved in the use of qualitative methodology, especially aspects related to anonymity and confidentiality, and covert research strategies
- d) An indication of the qualitative techniques and their application to the studies of land use and territorial and urban planning. Special mention will be made in individual and group interviews, participant and non-participating observation, go-along interview and photography
- e) Finally, the process of analysis of qualitative information will be used: coding and analysis of information with qualitative software programs (CAQDAS), specifically the Atlas.ti program. These practices will be carried out entirely in the computer rooms of the Faculty of Arts.

8 sessions of 2 hours (professor Miguel Solana):

- Main theoretical aspects of the qualitative methodology
- Mixed methodologies
- Participatory methodologies
- Ethical issues of research with qualitative methods
- Qualitative techniques and its application to territorial studies

4 sessions of 2 hours:

- Intense analysis of information: coding
- Computer tools for qualitative information analysis (CAQDAS)

#### Quantitative methodology (professors Joaquín Recaño and Oriol Marquet)

Numerical and spatial tools for the analysis of residential segregation and socioeconomic inequalities in urban areas.

The objective of this module is to introduce students to different techniques and numerical and spatial analysis methodologies that will be of great use when dealing with the analysis of urban spaces.

Computer tools for qualitative information analysis (CAQDAS).

8 sessions of 2 hours (Professor Joaquín Recaño):

- Obtaining local data at infra-municipal level and building dynamic tables in Excel
- Introduction to descriptive statistics: central tendency and dispersion indicators
- Contingency tables analysis and Pearson Khi-2 test
- Inequality indicators: Lorenz curve and Gini index
- Calculation and interpretation of segregation and spatial concentration indicators
- Exploratory analysis of spatial data (AEDE) with the GeoDA program, use and interpretation of the Global and Local Moran indicators
- Application of numerical and spatial tools to a case study

4 sessions of 2 hours

- Development of the case study with guided practices on descriptive statistics, calculation of indicators of segregation and inequality and application of the GeoDa program.

## **Methodology**

The work methodology will be combined: face-to-face classes (methodological exposure by the teacher); seminar sessions (discussions and debates from previous presentations); practices with computer software (computing practices in the computer classroom); in group and individualized tutorials; commentary on bibliography readings; and autonomous work of the student.

Distribution of tasks:

- Face-to-face E-A (40%).
- Supervised E-A (20%).
- Autonomous E-A (40%).

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Classes by the teaching staff, seminar sessions, classroom practices, master classes with ICT support and group discussion	83.5	3.34	5, 7, 4, 3, 15, 9, 16
Type: Supervised			
Discussion of readings of books and articles and tutorials in group/individualized	30	1.2	5, 7, 4, 9
Practicing the calculation and interpretation of territorial and demographic indicators	48.75	1.95	5, 7, 4, 9
Type: Autonomous			
Reading books, articles and other teaching materials. Study of the bibliography, preparation of works and presentations on readings and practices	62.75	2.51	5, 7, 4, 9

## Assessment

Evaluation activities	
Final master's degree development	
Preparation of partial orders	16%
Qualitative methodology	
Practices associated with Atlas.ti	14%
Reviews	8%
Attendance and active participation	20%
Quantitative methodology	
Reports and practices	34%
Attendance and active participation	8%
	100%

**VERY IMPORTANT:** Total or partial plagiarism of any of the exercises will automatically be considered "fail" (0) for the plagiarized item. Plagiarism is copying one or more sentences from unidentified sources, presenting it as original work (THIS INCLUDES COPYING PHRASES OR FRAGMENTS FROM THE INTERNET AND ADDING THEM WITHOUT MODIFICATION TO A TEXT WHICH IS PRESENTED AS ORIGINAL). Plagiarism is a serious offense. Students must learn to respect the intellectual property of others, identifying any source they may use, and take responsibility for the originality and authenticity of the texts they produce.

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Assignments related to the partial elaboration of the TFM	17%	0	0	5, 2, 9, 14, 18
Attendance and participation in face-to-face sessions	16%	0	0	13, 7, 4, 12, 2, 10, 14
Practices associated to Atlas.ti software	25.5%	0	0	1, 3, 8, 17
Reports and practices related to quantitative methodology	33.5%	0	0	7, 3, 15, 8, 11, 16
Reviews	8%	0	0	6, 10

## Bibliography

Manuals and articles on methodology of research in social sciences

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Qualitative methodology

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