

## Analysis Methods

Code: 102146  
ECTS Credits: 6

**2025/2026**

Degree	Type	Year
Sociology	OB	2

## Contact

Name: Marc Ajenjo Cosp

Email: marc.ajenjo@uab.cat

## Teachers

Marc Ajenjo Cosp

## Teaching groups languages

You can view this information at the [end](#) of this document.

## Prerequisites

It is recommended to have passed the courses on *Methodology and Design of Social Research*, *Quantitative Methods*, and *Qualitative Methods*.

## Objectives and Contextualisation

Within the curriculum of methods and techniques for social research, this course is designed as a continuation of the "Methodology and Research Design" course from the first year, and the "Quantitative Methods in Social Research" and "Qualitative Methods in Social Research" courses from the first semester of the second year of the degree.

The main aim of the course is to equip students with the theoretical foundations and technical tools necessary to develop the applied aspect of what it means to be a sociologist.

The fundamental objective is to provide students with the information and skills development for the application of both qualitative and quantitative techniques during the empirical testing phase of research, particularly in data analysis.

On one hand, the course will focus specifically on qualitative methods and techniques for observation and analysis of qualitative data (content analysis and thematic analysis).

On the other hand, from a quantitative perspective, the course concentrates on statistical techniques for analyzing relationships and associations between two variables.

## Competences

- Applying the main quantitative and qualitative methods and techniques of social research to a specific topic.
- Describing social phenomena in a theoretically relevant way, bearing in mind the complexity of the involved factors, its causes and its effects.
- Designing a social research project by defining a comprehensive theoretical framework with clearly defined concepts, formulating consistent and significant hypothesis, choosing suitable investigation techniques for the adopted concepts, and analysing the empirical results obtained with those techniques.
- Developing critical thinking and reasoning and communicating them effectively both in your own and other languages.
- Developing self-learning strategies.
- Enumerating the methodology and investigation techniques that support the main hypothesis about social relationships, the positions and practices of individuals in a social structure and the social changes.
- Searching for documentary sources starting from concepts.
- Students must be capable of assessing the quality of their own work.
- Students must be capable of managing their own time, planning their own study, managing the relationship with their tutor or adviser, as well as setting and meeting deadlines for a work project.
- Working in teams and networking in different situations.

## Learning Outcomes

1. Analysing a sample of interviews.
2. Analysing the results of an observation.
3. Defining concepts of analysis.
4. Developing critical thinking and reasoning and communicating them effectively both in your own and other languages.
5. Developing self-learning strategies.
6. Explaining the methodological basis of these quantitative and qualitative methods and techniques.
7. Formulating a hypothesis with these concepts.
8. Identifying the main quantitative and qualitative methods and techniques.
9. Indicating their dimensions, their possible quantitative indicators and the significant qualitative evidence in order to empirically observe them.
10. Measuring a social phenomenon with these instruments on the basis of a theoretical framework of analysis.
11. Mentioning the main concepts of sociology.
12. Obtaining conclusions from the information obtained with this tool.
13. Preparing a script for an interview or a discussion group.
14. Preparing an analytical tool that is significant to this hypothesis.
15. Producing an observation plan.
16. Relating them with the different approaches of sociology.
17. Searching for documentary sources starting from concepts.
18. Students must be capable of assessing the quality of their own work.
19. Students must be capable of managing their own time, planning their own study, managing the relationship with their tutor or adviser, as well as setting and meeting deadlines for a work project.
20. Using the appropriate software in order to analyse an interview or an observation.
21. Using the appropriate software to the basic multivariate statistical tools.
22. Using the appropriate software to the univariate statistical tools.
23. Using the basic multivariate statistical tools.
24. Using the univariate statistical tools.
25. Working in teams and networking in different situations.

## Content

### QUALITATIVE BLOCK

Topic 1: Observation techniques - direct observation

- Definition of concepts and field-specific terminology
- Research design, fieldwork, and conducting direct observation
- Advantages and limitations of the observation technique

Topic 2: Content and thematic qualitative analysis

- Epistemological framework
- Analytical elements and research strategies
- Content analysis methods and techniques
- Support tools for qualitative analysis (e.g., Atlas.ti)

Topic 3: Axiological aspects in qualitative research

- Values and object construction
- Political impact of research

Topic 4: Quality in qualitative research

- Terminological clarification: what do we mean by "quality"?
- Quality criteria inspired by quantitative techniques
- Alternative quality criteria

### QUANTITATIVE BLOCK

Topic 0: Statistical data analysis techniques

- Data analysis: features and main procedures
- Descriptive analysis and hypothesis testing
- Preparing data for analysis

Topic 1: Data retrieval and spreadsheet treatment

- Searching for data in various statistical institutes (IDESCAT, INE, Eurostat...)
- Basic Excel functions for data handling

Topic 2: Contingency table analysis

- Presentation and terminology
- Descriptive analysis using contingency tables
- Independence and association between two qualitative variables
- Statistical inference in contingency tables: Chi-square test
- Global and local association measures
- Contingency table analysis in RStudio

Topic 3: One-way ANOVA

- Mean comparisons:descriptive analysis
- Hypothesis testing between two means
- ANOVA model: model validation, explanatory power, multiple comparisons
- Mean comparisons and ANOVA in RStudio

Topic 4: Simple linear regression analysis

- Concept, measurement, and graphical representation of correlation
- Descriptive analysis of simple linear regression

- Regression analysis: model specification, parameter significance, model validation
- Simple linear regression models in RStudio

## Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Classroom practicals	15	0.6	2, 1, 5, 13, 14, 15, 6, 9, 12, 20
Lectures	37	1.48	2, 1, 3, 13, 14, 15, 11, 6, 7, 8, 9, 12, 16, 20
Type: Supervised			
Group tutorials	15	0.6	2, 1, 18, 4, 13, 14, 15, 11, 6, 19, 12, 16, 20
Type: Autonomous			
Group work	23	0.92	2, 1, 18, 17, 3, 5, 4, 13, 14, 15, 6, 7, 19, 9, 12, 16, 25, 20
Individual assignments	11	0.44	2, 1, 18, 3, 4, 14, 7, 12, 16
Individual exam prep	22	0.88	2, 1, 14, 6, 8, 12, 16, 20
Readings	23	0.92	11, 6, 8, 9, 16

Since the course is primarily focused on learning the basic techniques of quantitative and qualitative analysis, the teaching methodology and formative activities place the student at the center of the teaching-learning process.

Thus, the teaching methodology will combine: lectures (to guide and clarify doubts about the required readings) and in-person practical sessions (in seminars and/or computer labs). This teaching format allows for the application of the concepts learned and the techniques explained, and will be combined throughout the course with follow-up tutorials and independent work.

As mentioned in the content section, the course is divided into two clearly distinct blocks: the qualitative block and the quantitative block. Both blocks will be developed sequentially, starting with the quantitative block and continuing with the qualitative block.

Below, the different activities are detailed, along with their specific weight in the total time distribution that the student should dedicate to the course.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

## Assessment

### Continuous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Qualitative block: Attendance to	5%	0	0	2, 1, 3, 14, 6, 7, 8, 9, 12, 20

## practicals

Qualitative block: Group research project	25%	0	0	2, 1, 18, 17, 3, 5, 4, 13, 14, 15, 11, 6, 7, 19, 8, 9, 12, 16, 25, 20
Qualitative block: Written exam	20%	2	0.08	2, 1, 3, 5, 13, 14, 15, 11, 6, 7, 8, 9, 12, 16, 20
Quantitative block: Course participation and follow-up	5%	0	0	5, 6, 19, 8, 20
Quantitative block: Excel and group research project	20%	0	0	2, 1, 18, 17, 3, 5, 4, 13, 14, 15, 11, 6, 7, 19, 8, 9, 12, 16, 20
Quantitative block: Written exam	25%	2	0.08	2, 1, 3, 5, 4, 14, 15, 11, 6, 7, 19, 8, 9, 10, 12, 16, 21, 22, 20, 23, 24

## 1. Evaluation Model

This course does not offer a unique assessment system. Additionally, it requires active student participation and considers regular attendance as a way of integrating the different learning activities.

To pass the course, a minimum final grade of 5 is required, calculated as the weighted average of the 6 evaluation activities. See the weight distribution of each activity in the table above.

For the calculation of this weighted average, the following criteria will be applied based on course participation:

- Students who do not attend class regularly (attendance and/or participation below 70%): The average will only be calculated if the grade for each and every part is at least 5.
- Students who attend class regularly (attendance and/or participation above 70%): The average will be calculated if the grade for each and every part is at least 4.

### 1a. Evaluation Activities for the Qualitative Block (50%)

#### (A) Attendance at Scheduled Practical Sessions (5%)

During the classroom sessions, group activities will be carried out to apply the theories discussed in class, with the aim of putting into practice the theoretical and methodological tools presented during the session.

#### (B) Written Test (20%)

A theoretical exam in which the student will be asked to demonstrate their understanding and familiarity with the main theories of qualitative data analysis.

#### (C) Group Research Assignment (25%)

Qualitative material collected during the first methodological courses will be used to analyze it through a simple thematic analysis. The definition of a coding system for the text and its relation to the scientific debate the student wishes to contribute to will be evaluated, as well as the ability to comprehend the text.

### 1b. Evaluation Activities for the Quantitative Block (50%)

#### (A) Course Follow-up (5%)

This consists of two types of activities:

- In-Class Activities: In each session, a brief test will be conducted with questions on the content covered in class or the reading materials assigned for the session. Failure to answer this test will be considered as lack of follow-up.
- Out-of-Class Activities: At the end of each session, a series of exercises and problems will be given that must be submitted before the next class. Failure to submit them will be considered as lack of follow-up.

**(B) Written Test (25%)**

A practical exam in which the following will be evaluated:

1. Mastery of bivariate statistical concepts (both descriptive and inferential) and their application using RStudio software.
2. The ability to work correctly with a spreadsheet.

**(C) Group Assignments (20%)**

Two group assignments must be completed with a maximum of 5 people per group:

- Excel Applications (7%): This will involve applying the Excel functionalities explained in the sessions. It represents 35% of the total grade for the block.
- Hypothesis Testing in RStudio (13%): Continuation of the research started in the first semester in the course "Quantitative Methods for Social Research", using bivariate statistical techniques for data analysis.

**1c. Consideration of Non-Assessable Students**

In the evaluation report, students will be marked as "non-assessable" if they have not completed any evaluation activities or if they have only submitted the first research assignment (either from the qualitative or quantitative block).

**2. Retakes**

During the re-sit period, students who do not pass (<5) any of the individual tests or group assignments may present themselves for compensatory assessment.

Follow-up activities and/or attendance are excluded from the re-sit process.

**3. Carrying Grades from Previous Years**

Students who have passed any block in previous convocations MUST contact the responsible teaching staff at the beginning of the course.

Under no circumstances will partial credits for any of the two blocks be accepted for validation.

**4. Plagiarism Policy**

It is reminded that, at the moment of signing the enrollment, the following commitment was made:

"I DECLARE that the Universitat Autònoma de Barcelona has informed me that (...) plagiarism is the act of disclosing, publishing, or reproducing a work or part of it in the name of an author different from the original, which constitutes the appropriation of ideas created by another person without explicitly acknowledging their origin. This appropriation constitutes a violation of the intellectual property rights of that person, which I am not authorized to infringe under any circumstances: exams, assignments, practices... Therefore, I COMMIT to respecting the regulatory provisions regarding intellectual property rights in relation to teaching and/or research activities carried out by the UAB in the studies I am undertaking."

Exams: In case any student is detected copying unauthorized content, all individuals involved will be automatically suspended without the possibility of recovery.

Assignments: In cases of plagiarism in the writing of assignments, each case will be assessed individually, and in extreme cases, direct suspension without the option for recovery may be applied. In writing, both human and technological assistance is considered plagiarism.

**5. Use of Artificial Intelligence**

The use of Artificial Intelligence (AI) technologies is permitted in this course exclusively for support tasks, such as literature or information searches, text correction, translations, and support in the use of software packages.

Students must clearly identify which parts were generated using AI, specify the tools used, and include a critical reflection on how these influenced the process and the final outcome of the activity.

Lack of transparency in the use of AI will be considered a breach of academic honesty and may result in partial or total penalties to the activity grade, or more serious sanctions in severe cases.

## Bibliography

### 1. REQUIRED READINGS

At the Virtual Campus webspace and face-to-face sessions we will inform you which readings are mandatory (content evaluable in written tests) and which are complementary. In general, the base material for the subject is sufficiently addressed in the corresponding chapters of the following references:

- LÓPEZ-ROLDÁN, P.; FACHELLI, S. (2015). *Metodología de la Investigación Social Cuantitativa*. Universitat Autònoma de Barcelona. 1a edició. <<http://págines.uab.cat/plopez/content/manual-misc>>
- VERD, J.M.; LOZARES, C. (2016). *Introducción a la investigación cualitativa: fases, métodos y técnicas*. Síntesis.

### 2. RECOMMENDED READINGS

#### QUALITATIVE BLOCK

- AGUIRRE BAZTÁN A. (ed.) (1995). *Etnografía. Metodología en la investigación sociocultural*. Editorial Boixareu Universitaria.
- ALTHEIDE, D.L.; JOHNSON, J.M. (1994). "Criteria for Assessing Interpretative Validity in Qualitative Research", a N. K. Denzin i Y. S. Lincoln (Ed.), *Handbook of Qualitative Research*. Sage.
- BARDIN, Laurence (1986). *El análisis de contenido*. Akal.
- BAUER, M.W. (2000). "Classical Content Analysis: a Review", a Martin W. Bauer y George Gaskell (Ed.), *Qualitative Researching with Text, Image and Sound*. Sage.
- BERELSON, B. (1971). Content Analysis in Communication Research. Hafner Publishing Company.
- Blumer H. (1954). What is wrong with social theory? *American Sociological Review*, 19(1): pp. 3-10.
- Bourdieu P. (1999) Weight of the world: Social Suffering in Contemporary Society. Section 48. Understanding.
- BOYATZIS, R.E. (1998). Transforming qualitative information: thematic analysis and code development. Sage.
- COFFEY, A.; ATKINSON, P. (2005). Encontrar el sentido a los datos cualitativos. Universitat d'Alacant.
- COLÁS, M.P. (1998) "El análisis cualitativo de datos", a Leonor Buendía, María Pilar Colás, Fuensanta Hernández (Ed.), *Métodos de investigación en psicopedagogía*. McGraw-Hill.
- GARCIA JORBA, J.M. (2000). Diarios de campo. CIS.
- GASKELL, G.; BAUER, M.W. (2000). "Towards Public Accountability: beyond Sampling, Reliability and Validity", a Martin W. Bauer y George Gaskell (Ed.), *Qualitative Researching with Text, Image and Sound*. Sage.
- GHIGLIONE, R.; BLANCHET, A. (1991). *Analyse de contenu et contenus d'analyses*. Dunod.
- GUASCH, Oscar (1997). *Observación participante*. CIS.
- HUBER, G.L. (2003). "Introducción al análisis de datos cualitativos", a Antonio Medina Rivilla i Santiago Castillo Arredondo (Coord.), *Metodología para la realización de Proyectos de Investigación y Tesis Doctorales*. Universitas.
- E. Hughes (1984) *The sociological eye*. Transaction books.
- IBÁÑEZ, J. (1985). "Análisis sociológico de textos y discursos". *Revista internacional de sociología*, 43 (1): 119-160.
- IZQUIERDO, Javier (2006). *Las meninas en el objetivo. Lengua de Trapo*.
- NAVARRO, P.; DIAZ, C. (1994). "Análisis de contenido", a Juan Manuel Delgado y Juan Gutiérrez (Ed.), *Métodos y técnicas cualitativas de investigación en ciencias sociales*. Síntesis.
- OLIVIER de SARDAN, J.P. (2018). *El rigor de lo cualitativo: las obligaciones empíricas de la interpretación socioantropológica*. Centro de Investigaciones Sociológicas.

- RODRÍGUEZ GÓMEZ, G.; GIL FLORES, J.; GARCÍA JIMÉNEZ, E. (1996). Metodología de la investigación cualitativa. Aljibe.
- SANMARTÍN, R. (2000). "La observación participante", a M. García Ferrando, J. Ibáñez y F. Alvira (Ed.), El análisis de la realidad social. Métodos y técnicas de investigación. Alianza. (3a edició).
- WEBER, R.P. (1985). Basic Content Analysis. Sage.

+ Digital resources (dossiers for practice, documents, links, ...) on the Virtual Campus.

## QUANTITATIVE BLOCK

- AGUILERA DEL PINO, A.M. (2001). *Tablas de contingencia bidimensionales*. La Muralla.
- CEA D'ANCONA, M. Ángeles (1996). *Metodología cuantitativa. Estrategias y técnicas de investigación social*. Síntesis.
- GARCIA FERRANDO, Manuel (1994) *Socioestadística. Introducción a la estadística en sociología*. 2a edició rev. i amp. Alianza. Alianza Universidad Textos, 96.
- LOPEZ ROLDAN, P.; LOZARES COLINA, C. (1999). *Anàlisi bivariada de dades estadístiques*. Universitat Autònoma de Barcelona. Col·lecció Materials, 79.
- SÁNCHEZ CARRIÓN, J.J. (1999) *Manual de análisis estadístico de los datos*. Alianza. Manuales 055.

+ Digital resources (dossiers for practice, documents, links, ...) on the Virtual Campus.

## Software

Spreadsheet: Microsoft Excel

Quantitative data transformation and analysis: RStudio

Qualitative data analysis: Atlas.Ti

## Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(SEM) Seminars	1	Catalan	second semester	morning-mixed
(SEM) Seminars	10	Catalan	second semester	morning-mixed
(SEM) Seminars	51	Catalan	second semester	afternoon
(SEM) Seminars	510	Catalan	second semester	afternoon
(TE) Theory	1	Catalan/Spanish	second semester	morning-mixed
(TE) Theory	51	Catalan/Spanish	second semester	afternoon