

Quantitative and Qualitative Methods of Data Collection and Analysis 2026/2027

Code: 45818

Credits: 10

Degree programme	Type	Course
Political Science	OB	1

Contact lecturer

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Teaching staff

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Group languages

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

Prerequisites

The quantitative part of the course assumes no prior knowledge other than a minimal mathematical background. Students who have not taken any type of quantitative course since high school should read the following text before the course starts:

Bolker, E. D., & Mast, M. 2015. *Common Sense Mathematics*. Mathematical Association of America. Available at <http://www.cs.umb.edu/~eb/qrbook/qrbook.pdf>.

Those who want to gain some more statistical insight are also strongly encouraged to read:

Wheelan, C. 2013. *Naked Statistics: Stripping the Dread from the Data*. New York: WW Norton & Company.

Objectives

The aim of this course is for the students to be familiar with and know how to apply a series of the main social science research techniques of collecting and analysing data. In order to meet these objectives we include both quantitative and qualitative techniques. We cannot cover all the research techniques of the social sciences, but centre on those that can be found in the main social science journals. We prioritize issues of practical training and interpretation over very mathematical questions.

Specific skills

- To identify and know how to affront the main methodological difficulties that occur in a political science analysis
- To work with a complex and diverse set of data and sources of information
- To design a research project that satisfies criteria of excellence and rigorous analysis.
- To apply those qualitative and quantitative research techniques which are necessary for a systematic and rigorous analysis of political reality.

Transversal skills

- To be able to evaluate applied or academic research with relevant criteria.
- To be able to design academic and applied research projects in an independent manner and using the relevant terminology, argumentation and analytical framework.
- Demonstrate the ability to read and understand specialized texts in English.

Learning outcomes

- CA03 (Apply data collection and analysis techniques using specialist software to conduct rigorous research.) Apply data collection and analysis techniques using specialist software to conduct rigorous research.
- CA04 (Assess the technical quality of the information and empirical findings, taking biases and limitations into account.) Assess the technical quality of the information and empirical findings, taking biases and limitations into account.
- CA05 (Critically interpret empirical results in light of the techniques used, recognising their scope, limitations and potential biases.) Critically interpret empirical results in light of the techniques used, recognising their scope, limitations and potential biases.
- KA02 (Describe the fundamental principles of quantitative and qualitative methodologies in social research.) Describe the fundamental principles of quantitative and qualitative methodologies in social research.
- KA03 (Identify appropriate data collection techniques according to the subject of study and the methodological approach.) Identify appropriate data collection techniques according to the subject of study and the methodological approach.
- KA04 (Recognise the importance of quality and ethics in data collection and analysis.) Recognise the importance of quality and ethics in data collection and analysis.
- SA03 (Design and implement tools for collecting empirical data, ensuring their validity and reliability.) Design and implement tools for collecting empirical data, ensuring their validity and reliability.
- SA04 (Apply quantitative and qualitative techniques using specialist software to analyse data and interpret results in political science.) Apply quantitative and qualitative techniques using specialist software to analyse data and interpret results in political science.

Contents

QUALITATIVE METHODS (Convenor: Eva Ostergaard)

Introduction:

Session 1. Introduction to qualitative research techniques

What are the main characteristics of qualitative research? How to assess validity and reliability in qualitative research? What kind of research questions can we ask using qualitative research techniques? Which types of qualitative techniques can best be combined and how may they be triangulated?

Data collection:

Session 2. Field research

This class will examine methodological and practical issues of ethnographic research. It will cover: typologies of field research, the fieldwork entry, the (participant) observation, the collection of information, and the analyses of qualitative evidence.

Session 3. Interviews I

What are the characteristics and differences between structured, semi-structured and open-ended/narrative interviews? How may the researcher sample the interviewees in a qualitative research project?

Session 4. Interviews II -

Session 5. Interviews III - Focus Group

In this class, there will be an introduction to focus group, taking into account conceptual considerations, best practices and how to design it.

Session 6. Further issues in Qualitative Research

We will cover ethical issues, sensitive topics, and transparency in qualitative research (active citation and archiving).

Data analysis:

Session 7. Discourse analysis

This session will clarify what discourses are, how they function and how we can analyse them. In addition, we will deal with the types of discourse analysis and we will reflect upon the kinds of data we can examine discursively.

Sessions 8, 9, and 10. Analysis of Interviews

QUANTITATIVE METHODS (Convenor: Danislava Marinova)

Session 1: Análisis bivalente básico

Session 2: Introducción a la inferencia estadística

Session 3: Pruebas de hipótesis bivariadas

Session 4: Correlación y regresión bivariadas

Sessions 5, 6: Regresión múltiple (I)

Sessions 7, 8: Regresión múltiple (II): variables independientes categóricas

Session 9: Regresión múltiple (II): Interacciones

Sessions 10 & 11: Regresión logística (I)

Sessions 12 & 13: Límites y Extensión de los modelos de regresión

Session 14: Postestimación, gráficos, tablas: Sesiones prácticas

Learning activities and methodology

Title	Hours	ECTS	Learning outcomes
Qualitative data collection/generation	30	1.2	CA03, KA03, KA04, SA03
Quantitative data analysis	30	1.2	CA03, CA04, SA04
Qualitative data analysis	30	1.2	CA03, CA05, SA04
Writing essays/reports	25	1	CA04, CA05, KA02
In-class practice	25	1	CA03, CA05, KA03, SA03, SA04
Individual tutoring	20	0.8	CA03, CA04, CA05, KA02, KA03, KA04, SA03, SA04
Lecture	25	1	CA03, CA04, CA05, KA02, KA03, KA04, SA03, SA04
Collective tutoring/discussion of projects	10	0.4	CA05, KA02
Group tutorials	30	1.2	CA03, CA04, CA05, KA02, KA03, KA04, SA03, SA04

The sessions on quantitative and qualitative research techniques will be taught in parallel.

The classes combine theoretical lectures with seminars and sessions of practicing different techniques. An important part of the course takes place outside of the classroom in order to consolidate the use of a selection of the research techniques.

Note: 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.

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Assessment

Continuous assessment activities

Title	Weight	Hours	ECTS	Learning outcomes
Assignments qualitative part (three)	40	15	0.6	CA03, CA04, CA05, KA03, KA04, SA03, SA04
Final exam (quantitative)	36	5	0.2	CA04, CA05
Mid-term exam (quantitative)	24	5	0.2	KA02, KA03, SA03

To receive a passing grade in the module, students need a passing grade in each of the module's two parts (qualitative part and quantitative part). A 10% penalty grade applies to each day that the student is late with a submission grade.

QUALITATIVE PART (40% of final grade for the module)

Students will be evaluated based on four assignments in qualitative methods:

- Exercise 1 (30% of the qualitative part), Fieldwork/observational techniques
- Exercise 2 (30% of the qualitative part), Interview exercise
- Exercise 3 (30% of the qualitative part), Data analysis (using Atlas.ti in the software to support the analysis is optional)
- Exercise 4 (10% of the qualitative part), Group presentation on the research process

To receive a passing grade in the qualitative part of the module, students must meet all four of the following requirements:

1. attend at least 80% of the class sessions;
2. turn in all four assignments;
3. receive a passing grade (5 or higher) on three of the four assignments;
4. have an average grade greater than 5 on the four works.

Remedial exam: students who have an average grade of less than 5 may take the recovery exam if they meet the following two requirements:

1. have attended 80% of the class sessions AND
2. have delivered the four assignments.

The remedial exam is graded on a pass-or-fail basis. If students pass the remedial exam, they can receive, at best, a final mark of 5 for the qualitative part of the module.

QUANTITATIVE PART (60% of the final grade of the module)

Students will be evaluated based on a mid-term exam (40% of the quantitative part) and a final exam (60% of the quantitative part).

To receive a passing grade, students must meet the following four requirements:

1. attend at least 80% of class sessions;
2. receive a passing grade on the final exam;
3. have an average grade higher than 5.

Remedial exam: Students who have an average grade below 5 on all three assignments, fail the final exam, and/or present irregularities on exams (see below) may take the make-up exam if they meet the following two

requirements:

1. have attended 80% of the class sessions,
2. have taken both the remedial and final exams.

The remedial exam is graded on a pass-or-fail basis. If students pass the remedial exam, they can receive, at best, a final mark of 5 for the quantitative part of the module.

Irregularities. Any irregularity in an assessment act (academic fraud, plagiarism or improper use of AI, unless this use is expressly authorised in the teaching guide), which may lead to a significant variation in the grade, means that this exam or assignment will be graded with a 0. In the event that the teaching guide provides that in order to pass the subject it is an essential requirement to have obtained a minimum grade in this assessment or that several irregularities occur in the assessment acts of the same subject, the final grade for this subject is 0. Apart from this, a disciplinary process may be initiated against the student who incurs any of these irregularities. The faculty reserves the right to carry out oral exams or an alternative test in order to verify the effective acquisition of knowledge and skills and therefore the validity of the assessment tests carried out by the students.

Bibliography

Qualitative

Della Porta, D. & M. Keating, M. 2008. *Approaches and Methodologies in the Social Sciences: A Pluralist Perspective*. Cambridge: Cambridge University Press.

Gupta, A. (2024). *Qualitative Methods and Data Analysis Using ATLAS.ti: A Comprehensive Researchers' Manual*. Springer Texts in Social Sciences.

Kapiszewski, Diana, MacLean, Lauren M., Read, Benjamin L. 2015. *Field Research in Political Science: Practices and Principles*. Cambridge. Cambridge University Press.

Okoko, J. M., Tunison, S., & Walker, K. D. (Eds.). (2023). *Varieties of Qualitative Research Methods: Selected Contextual Perspectives*. Springer Texts in Education. Cham, Switzerland.

Relevant Journals:

International Journal of Qualitative methods

<http://www.sagepub.in/journals/Journal202499#tabview=manuscriptSubmission>

Qualitative Research Journal <http://www.emeraldinsight.com/toc/qj/15/4>

Quantitative

Kellstedt, P. M. & G. D. Whitten. 2013. *The Fundamentals of Political Science Research*, 2nd ed. Cambridge: Cambridge University Press.

Pollock, P. H. 2016. *The Essentials of Political Analysis*, 5th ed. Washington, DC: CQ Press.

Pollock, P. H. 2015. *A Stata Companion to Political Analysis*, 3rd ed. Washington, DC: CQ Press.

Software

Qualitative research methods

Atlas-ti

Quantitative research methods

Stata (18)

Both are available to students in the LIAM lab at the School of Political Science and Sociology.

Course groups and languages

The information provided is provisional until November 30. After this date, you will be able to consult the language of each group through this [link](#). To access the information, you will need to enter the course CODE

PROVISIONAL