



STUDY GUIDE

*Political Science Research
Design and Methods*

Organised by

University of Catania





1. IDENTIFYING DATA.

• Course Name.	<i>Political Science Research Design and Methods</i>
• Coordinating University.	<i>University of Catania</i>
• Partner University(ies) Involved.	<i>none</i>
• Course Field(s).	<i>Political science/social science research methods</i>
• Related Study Programme.	<i>Data Science</i>
• ISCED Code.	<i>0312</i>
• SDG.	<i>Cross-cutting</i>
• Study Level.	<i>Master</i>

• Number of ECTS credits allocated.	<i>6</i>
• Mode of Delivery.	<i>Online live</i>
• Language of Instruction.	<i>English</i>
• Course Dates.	<i>4 March–31 May 2024</i>
• Precise Schedule of the Lectures.	<i>Two hour-seminars, twice or three times per week</i>
• Key Words.	<i>Research design, research methods, political science, methodology.</i>
• Catchy Phrase.	<i>With this course, you will learn to design research projects for description, explanation or prediction. It will take you from asking a good research question all the way to formulating a theory and coming out with a good research design to test your theory and answering your question. The course pays attention to the use of innovative data and methods, but it is also useful to those wishing to carry out solid qualitative research.</i>

• Prerequisites and co-requisites.	<i>The course does not assume prior knowledge of political science or research methods. Seminars are in English. Moreover, the course requires active participation, class presentations, and a final term paper. Therefore, a good level of English is a requirement.</i>
• Number of EUNICE students that can attend the Course.	<i>20</i>
• Course inscription	





procedure(s).	
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2. CONTACT DETAILS.

• Department.	<i>Department of Political and Social Sciences</i>
• Name of Lecturer.	<i>Marcello Carammia</i>
• E-mail.	marcello.carammia@unict.it
• Other Lecturers.	

3. COURSE CONTENT.

This course focuses on the methods for designing political (and social) science research, with a special emphasis on innovative (big) data sources and Data Science methods. We will discuss how to design a political science research project, from asking good research questions to selecting data sources, formulating and testing hypotheses, and evaluating findings. Throughout, we will highlight the key differences between designing research for exploring problems, for developing theories, and for making forecasts – and we will attempt to build bridges between them.

While you will be expected to pick up your topic and develop your own research project throughout the course, this is not a primarily technical course. Rather than on analytical techniques or statistical modelling, the emphasis will be on developing the ability to design, carry out and evaluate research that exploits the potential of big data and data science to understand political and social problems.

4. LEARNING OUTCOMES.

Knowledge and understanding. By the end of the course, students will be able to identify theories, hypotheses, and methods used in empirical political science research. They will understand how data science can contribute to the understanding of political and social problems and dynamics.

Applying knowledge and understanding. By the end of the course, students will apply various methods to address political science research questions. They will be able to design and carry out a solid research project that uses innovative data for understanding, describing, real-time monitoring and/or forecasting political and social behaviour.

5. OBJECTIVES.

Making judgements. By the end of the course, students will analyze data to measure concepts, make comparisons, and draw inferences. They will be able to understand suitable and appropriate methodologies and designs for political and social science research.



Communication skills. By the end of the course, students will learn how to communicate political science concepts, theories, and methods in writing. They will also be able to present their research projects, findings and implications in front of an audience.

Learning skills. By the end of the course, students will learn how to recognise the most suitable method(s) for addressing research questions with the use of big data and data science methods.

6. COURSE ORGANISATION.

UNITS

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|----|----------------------------------------------------------------------------------------------|
| 1. | <i>The scientific study of politics; asking good research questions.</i> |
| 2. | <i>Theories, concepts, operationalization, measurement, explanation and causal relations</i> |
| 3. | <i>Experimental designs, comparative designs, large-n and small-n</i> |
| 4. | <i>Qualitative designs, mixed and nested methods</i> |

LEARNING RESOURCES AND TOOLS.

PLANNED LEARNING ACTIVITIES AND TEACHING METHODS.

Seminars, group work, student workshops

7. ASSESSMENT METHODS AND CRITERIA.

Assessment is based on class participation, presentations (30%), final paper (40%), and final exam (30%).

The final paper is a 3000-5000 word original research design proposal carried out by applying course materials. The research design proposal should include the basic elements of an original research project, namely a research question, theoretical contribution, testable hypotheses, and a description of the proposed data collection and analysis. This paper should focus narrowly on a topic of the student's choice and display a greater depth of understanding of a smaller set of ideas raised in the course. More information in a separate document (see "Student deliverables").

Students should work on the research design proposal over the full term. Indeed three of the course seminars – the student workshops – will include students' presentations of 1) possible research topics/questions (tentatively in the sixth week of the course); 2) literature review and hypotheses (around the ninth week); 3) data and preliminar design (around the end of the course).

The final exam focuses largely on an oral discussion of the research design proposal, that will (also)



be used as a basis for discussing the key topics of the course.

OBSERVATIONS.

8. BIBLIOGRAPHY AND TEACHING MATERIALS.

CORE TEXT – THIS IS THE MAIN TEXT WE USE FOR SEMINARS

- Toshkov, D. (2016). *Research Design in Political Science*. London New York, NY: Palgrave.

SUPPLEMENTARY READINGS – MAIN ONES, SOME CHAPTERS FROM THESE ARE USED FOR SOME SEMINARS (see section on “Detailed course contents” below)

- Cunningham, S. (2021) *Causal Inference: The Mixtape*. Yale University Press. Available as free bookdown at <https://mixtape.scunning.com>
- Huntington-Klein, Nick. (2022). *The Effect. An Introduction to Research Design and Causality*. Routledge & CRC Press. Available as free bookdown at <theeffectbook.net>
- Kosuke Imai (2017) *Quantitative Social Science*. Princeton: Princeton University Press
- Llaudet, Elena & Kosuke Imai (2022) *Data Analysis for Social Science*. Princeton: Princeton University Press
- Kellstedt, P.M. & Whitten, G.D. (2018). *The Fundamentals of Political Science Research*. Cambridge: Cambridge University Press.

The course coordinator will also provide several journal articles which will be used to examine the practical application of research methods to a variety of research questions.

