

Introduction to R

Quantitative Methods I

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Course content

This website contains all the material for the lab sessions of the Quantitative Methods class for the Fall 2025 semester in the [research master's program in Political Science](#) at Sciences Po Paris. The class complements Jan Rovny's lecture on [Quantitative Methods I](#).

This course is an introduction to programming with R and RStudio, specifically designed for political scientists. The goal is to familiarize students with the R programming language and its applications in data analysis, emphasizing its relevance to political science research. In this course, you will learn how to manipulate quantitative data, compute descriptive statistics, create data visualizations, and build statistical models. You will apply the main concepts learned in the Quantitative Methods class.

This class does not require any prior programming or statistical experience and is designed for complete beginners. It provides you with the basics, resources, and motivation to learn more on your own, continue in the next semester, and apply quantitative methods in your research.

Outline of the course

| Session | Description | Date |
|-----------|--|------|
| Session 1 | Getting started with R and Rstudio | |
| Session 2 | Manipulating and describing data | |
| Session 3 | Visualizing data | |
| Session 4 | Testing relationships | |
| Session 5 | Correlation and simple linear regression | |
| Session 6 | Multivariate analysis | |

Course validation

- 5 small individual exercises
- 1 group exercise

Ressources

Part I

Session 1 : Getting started

Part II

Session 2 : Manipulating data

Part III

Session 3 : Data visualization

Part IV

Session 4 : Testing relationships

Part V

Session 5 : Correlation and regression

Part VI

Session 6 : Multivariate analysis