DEPARTMENT OF POLITICAL AND SOCIAL SCIENCES

1st Term Seminar, Academic Year 2023-2024

Introduction to Quantitative Methods

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Course Description and Objectives

Course Note: This course fulfills the requirement for one quantitative course during your first two years of study. It's important to note that this course can be replaced with more advanced options, such as Intermediate Quantitative Methods offered by the SPS Department or Introduction to Econometrics and Regression provided by the Economics Department.

This course will introduce students to quantitative methods in the social sciences. The aim is to provide the fundamental skills for independent research. Students will learn the main methods for descriptive and inferential statistics and famliarize with evaluating causal relationships. It will introduce students to statistical programming using R. Students will learn where to find and how to use social science data. The course will be example-driven and will focus on theoretical principles underlying the different techniques and methods. While mathematical aspects are essential, this course ensures they are kept to a minimum, allowing students from diverse academic backgrounds to comfortably engage with the material. Consequently, no prerequisites are required for enrollment. The specific readings will be determined and communicated at a later moment.

Learning Outcomes

By the course's conclusion, students will have gained the ability to critically evaluate and comprehend the quantitative content within sociological and political science papers. They will also be proficient in crafting precise quantitative research questions, and adept at locating and analyzing data using suitable statistical methods. Additionally, students will have honed their skills in articulating their quantitative research findings effectively. They will have the know-how to present results in a clear and concise manner, employing fitting visualizations and explanations that highlight the significance of their findings within the realms of sociological and political science contexts.

Requirements

As part of the assessment, each student will be required to produce a short research brief on a topic of their choice, spanning 2-3 pages. The research brief should demonstrate the student's ability to articulate a coherent research question, formulate testable hypotheses, identify the appropriate models and data sources, analyze the data and discuss the limitations inherent in their study. At the conclusion of the course, each student will present their research brief in a concise 10-minute presentation[1]. The assessment provides valuable hands-on experience and fosters a deeper understanding of the practical challenges and considerations associated with quantitative research in the social sciences.

Schedule *(Note: The schedule may undergo minor adjustments).*

	Title	**Lectures** full **schedule** and list of **venues** are available **here**	**Lab** full **schedule** and list of **venues** are available **here**
1	Introduction to Quantitative Analyses	02/10/2023 11:00 – 13:00	03/10/2023 11:00 – 13:00
2	Research Design	09/10/2023 11:00 – 13:00	10/10/2023 11:00 – 13:00
3	Descriptive Statistics	16/10/2023 11:00 – 13:00	17/10/2023 11:00 – 13:00
4	Bivariate linear regression models; T-test for Difference in Means and Hypothesis Testing	23/10/2023 11:00 – 13:00	24/10/2023 11:00 – 13:00
5	Bivariate linear regression models	30/10/2023 11:00 – 13:00	31/10/2023 11:00 – 13:00
6	Multiple linear regression models	06/11/2023 11:00 – 13:00	07/11/2023 11:00 – 13:00
7	Assumptions,Violations of Assumptions, interactions	13/11/2023 11:00 – 13:00	14/11/2023 11:00 – 13:00
8	Panel Data, Time-Series Cross-Section Models	20/11/2023 11:00 – 13:00	21/11/2023 11:00 – 13:00
9	Binary models: Logit	27/11/2023 11:00 – 13:00	28/11/2023 11:00 – 13:00
10	Participant Presentations	06/12/2023 11:00 – 13:00	05/12/2023 11:00 – 13:00

1 Available time can be reduced or extended based on the total number of participants to the course.