Prerequisites to Enroll

None

Overview and Objectives

This course builds on and further extends the econometric and statistical content studied in the first quarter, with a special focus on techniques relevant to the evaluation of public policies. The main challenge for policy evaluation is to establish a causal link between policy interventions and outcomes. The objective of the course is to introduce the main approaches used in the evaluation of public policies. The course presents strengths and weaknesses of each approach in terms of internal and external validity and uses real-world evaluations of specific interventions as an illustration.

Recommended Background

Quantitative & Statistical Methods I.

Course Outline

I. Potential Outcomes and Causality: Treatment Effects
II. Social Experiments (Randomized Controlled Trials and Natural Experiments)
III. Selection on Observables. Matching
IV. Instrumental Variables
V. Regression Discontinuity
VI. Differences-in-Differences
VII. Panel Data
VIII. Distributional Effects, Quantile Regression, and Quantile Treatment Effects.
Required Activities

The course will include theory lectures and practical (TA) sessions. In addition, students will hand in several problem sets. Emphasis of the problem sets will be in the Stata implementation of the techniques reviewed in class.

Evaluation

Exam (70%) and problem sets (30%).

Competences

- To (be able to) communicate with determination and in the English Language, the results and implications of the required analytical study using a language that the receiver can relate to.

- To work within a heterogeneous team of researchers as economic analyst using specific group techniques.

- To fit in diverse professional environments and varied types of collaborations in different professional projects.

- To possess and understand the knowledge that provides a basis or opportunity to be original in the development and / or application of ideas, often in a research context.

- That students know how to apply the acquired knowledge and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study.

- That the students are able to integrate knowledge and face the complexity of making judgments based on information that, being incomplete or limited, include reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.

- That the students are able to communicate their conclusions and the knowledge and the ultimate reasons that sustain them to both, specialized and non-specialized publics in a clear
Quantitative and Statistical Methods II

Learning Outcomes

- Recognizes the statistical, econometric and analytical instruments necessary for economic analysis.
- Applies analytical and quantitative instruments to economic problems, formulating the appropriate hypotheses and using the necessary instruments.
- Analyze complex problems.
- Use evidence to solve new problems and develop an adequate analysis.

Materials

General References


Social Experiments


Selection on Observables (matching)


Instrumental Variables


Regression Discontinuity


Differences-in-differences


Panel Data


Arellano, M., 2003, Panel Data Econometrics, Oxford University Press.


Distributional Effects, Quantile Regression, and Quantile Treatment Effects


15P021
Quantitative and Statistical Methods II


