UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Econometrics and Impact Evaluation - 1

2627-3-E3303M017-T1

Learning objectives

Having successfully completed this module, students will be able to:

- Knowledge and understanding: understand the main econometric approaches used to investigate causal relationships in economics, including their assumptions, strengths, and limitations.
- Applying knowledge and understanding: apply selected empirical methods to quantitative data using Stata, and interpret the results in relation to relevant economic questions.
- Making judgements: critically assess causal claims in economics and in broader public debates, identifying potential threats to identification and evaluating the credibility of empirical evidence.
- Communication skills: discuss empirical results clearly, using appropriate economic and econometric terminology.
- Learning skills: independently engage with applied empirical research, understand the methodological choices made in academic papers, and develop the skills needed to apply these tools in future research or policy analysis.

Contents

In this module we will

1. examine what it means to assess causal effects and conduct rigorous impact evaluations
2. learn the tools that as economist we have at disposal to do that
3. look at studies that use those tools to answer important questions
   - what is the impact of reducing the minimum legal drinking age on mortality?
   - what is the economic benefit of studying for longer years?
   - is it really worth to pay more to go to more prestigious private universities?
4. put the theory into practice, by analyzing actual data from real world studies

Detailed program

More specifically, the module will cover the following topics:

1. Introduction to Impact Evaluation
2. Randomized Controlled Trials (RCTs)
3. Regression Analysis
4. Instrumental Variables
5. Regression Discontinuity Designs
6. Difference-in-Differences
7. Examples and Applications

The module adopts a ”hands-on” approach and will be less theoretical than other standard econometrics modules.

Prerequisites

Teaching methods

Lectures combining a mix of “traditional” classes, more in-depth training sessions, and practical exercises analyzing data from real datasets and studies (using Stata software)

Assessment methods

Written exam (open questions) and research proposal (optional).

Textbooks and Reading Materials

Textbook: "Mastering Metrics: The Path From Cause To Effect" by Joshia D. Angrist and Jorn-Steffen Pischke, Princeton Edition (2015)
Additional Material: lecture notes and scientific papers

Semester

First Semester

Teaching language

English

Sustainable Development Goals

NO POVERTY | QUALITY EDUCATION | REDUCED INEQUALITIES