Ph.D. in ECONOMICS – Universities of Milan and Pavia

Economic Policy Evaluation
Academic year 2025-26 – Third Term

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Office hours: By appointment.

Course description
The course aims to acquaint students with key empirical methods for policy impact evaluation, such as randomized control trials, regression discontinuity design, difference in differences and propensity-score matching techniques. Students will develop the basic skills to understand which method is best suited to correctly identify causal impacts in different evaluation contexts. The course will involve both presentations and discussions of academic papers using each technique. The students will be encouraged to apply the methods covered in class for developing their own research project. The course activities will allow students to practice their presentation skills.

In particular, the course will be articulated into different activities. The first will cover the theory and empirical applications of the different methods. The second will be devoted to discussion of the methodologies through student-led presentations of selected academic papers. The third will involve student presentations of their own research proposals. Students will then fully articulate their research proposals for the course assignment.

Course organization: There are 7 lectures, three hours each, held in person.

Readings
Suggested textbooks:
Angrist, J.D. and Pischke, J.S. (2015) Mastering Metrics, Princeton University Press. → MM

S. Cunningham, (2021) "Causal Inference: the Mixtape" (available online at: https://mixtape.scunning.com/) → MT

Gertler et al. (2011). Impact evaluation in practice. The World Bank (available online at: http://www.worldbank.org/en/programs/sief-trust-fund/publication/impact-evaluation-in-practice)

Additional suggested textbooks:

Angrist J.D. and Pischke J.S. (2009) Mostly Harmless Econometrics: An Empiricist's Companion, Princeton University Press

Wooldridge (2009) Introductory Econometrics: A Modern Approach, South-Western College Pub

The course will also be based on the discussion of academic papers: below, under each topic is a list of papers that students can choose from for their presentation.

Course Assessment: The assessment is based on a presentation and a short research proposal.

<u>Presentation</u>. One-hour presentation, divided in two parts: first, the presentation of the paper; second, the application of the method or the topic to the student's own research. Students should present the paper as if it were their own. The presenters should also look at working paper versions of the paper, to see its evolution.

All students should have read the paper and participate in the discussion on the methods and on the clarity of the presentation.

<u>Research proposal</u>. The research proposal should clearly state:
▪ the research question;
▪ the reason why the question is relevant and novel, briefly discussing the gap in the literature that the project addresses;
▪ the methodology to be used to answer the question, which should consist in the application of one of the impact evaluation techniques discussed during the course;
▪ the data to be used and setting to be studied.

The proposal should not exceed 2000 words. Proposals should be individual, unless agreed upon with the instructor.

COURSE OUTLINE

1. **Introduction**
   Discussion of the goals of the course: offering an intuition of impact evaluation (IE) methods, providing an opportunity to practice presentation skills, helping include IE into students' own research.

   Introductions: research interests and initial 'impact' question.

   Choice of papers: I have selected papers that are either classic applications of the methods, or recent well-published ones. Students can suggest alternative papers, provided that they are of equally good quality and rigorous, and that they use the same methodology as the one that they are replacing.

   Discussion of the course calendar. In particular, discuss two possible learning opportunities close in spirit to this course's key goals. First, the JEM workshop: it is usually planned during the time of the course. It will involve presentations of papers in applied economics, so one suggestion is that we attend the event and use the following lecture to comment them. Second, I am in the process of designing field experiments, of writing papers, and of revising papers after getting referee
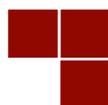
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reports. I could present one of these projects papers and share it with you to read, and then we could discuss your comments to the paper and (if applicable) those I got from the referee reports. This will give us the chance to discuss the research design, writing and review process in practice, which is probably still new to you. I include two recently published papers that could be used to discuss the review process among the possible readings below.

The problem of causal inference. Discuss the missing counterfactual problem, the heterogeneity of treatment effects, and the choice of method given the context and the resulting impact estimates.

2. Randomized control trials
- MM Chapter 1
- MT chapter 4

Papers for presentation
- Karlan and Zinman (2009). 'Observing unobservables: identifying information asymmetries with a consumer credit field experiment,' Econometrica
- De Mel et al. (2008). 'Returns to capital in microenterprises: evidence from a field experiment', Quarterly Journal of Economics.
- Bloom et al. (2013). 'Does management matter? Evidence from India.' Quarterly Journal of Economics.

3. Online, survey and lab-in-the-field experiments
- Stancheva Stefanie (2022) How to Run Surveys: A guide to creating your identifying variation and revealing the invisible, Annual Review of Economics.

Papers for presentation
- Coibion et al. (2022). 'Monetary policy communications and their effects on household inflation expectations', Journal of Political Economy.
- Kumar et al. (2023). "The Effect of Macroeconomic Uncertainty on Firm Decisions." Econometrica.
- Bursztyn et al. (2020). 'From Extreme to Mainstream: The Erosion of Social Norms', American Economic Review.
- Bursztyn et al. (2020), 'Misperceived social norms: Women working outside the home in Saudi Arabia', American Economic Review.

4. Instrumental variables
- MM Chapter 3
- MT Chapter 7

Papers for presentation
- Acemoglu et al. (2001). 'The colonial origins of comparative development: an empirical investigation', American Economic Review.
- Angrist and Evans (1998). 'Children and their parents' labor supply: Evidence from exogenous variation in family size', American Economic Review.
- De Mel et al. (2008). 'Returns to capital in microenterprises: evidence from a field experiment', Quarterly Journal of Economics.

5. Regression discontinuity designs
- MM Chapter 4
- MT Chapter 6
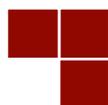
- Cattaneo and Titiunik (2022). 'Regression Discontinuity Designs', Annual review of Economics.
- Cattaneo and Titiunik (2019). 'A Practical Introduction to Regression Discontinuity Designs: Foundations'.

Papers for presentation
- Campante and Yanagizawa-Drott (2018). 'Long-Range Growth: Economic Development in the Global Network of Air Links,' Quarterly Journal of Economics.
- Dell (2010). 'The Persistent Effects of Peru's Mining Mita', Econometrica.
- Bonan et al. (2020). 'The interaction of descriptive and injunctive social norms in promoting energy conservation', Nature Energy.

6. Differences-in-differences
- MM Chapter 5
- MT Chapter 9

Papers for presentation
- Qian (2008). 'Missing Women and the Price of Tea in China: The Effect of Sex-
- Specific Earnings on Sex Imbalance', Quarterly Journal of Economics.
- Duflo (2001). 'Schooling and Labor Market Consequences of School Construction
- in Indonesia: Evidence from an Unusual Policy Experiment,' American Economic Review.
- Khwaja and Mian (2005). 'Do Lenders Favor Politically Connected Firms? Rent Provision in an Emerging Financial Market', Quarterly Journal of Economics.

7. Regression, synthetic control, Machine Learning and propensity score matching
- MM Chapter 2
- MT Chapter 2, 5 and 10
- Mullainathan and Spiess (2017). 'Machine learning: an applied econometric approach', Journal of Economic Perspectives.

Papers for presentation
- Britto et al. (2021). 'The effect of job loss and unemployment insurance on crime in Brazil', Econometrica.
- Burlig et al. (2020). 'Machine Learning from Schools about Energy Efficiency', Journal of the Association of Environmental and Resource Economists.
- Fisman et al. (2024). 'Corruption and Firm Growth: Evidence from around the World,' Economic Journal.

8. Economics in practice
One lecture will be devoted either to attending the JEM, or to discussing a paper currently or recently under review or an experiment currently in the design phase.
Papers for discussion
- Bonan et al. (2025). 'Social norms and tariff salience: An experimental study on household waste management', Journal of Environmental Economics and Management.
- Bonan et al. (2024). 'Heat of the Moment: How Temperature influences the Search and Purchase of Energy-Using Appliances', Journal of Economic Behavior and Organization.

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