1 General Information

- Organized by The Abdul Latif Jameel Poverty Action Lab (J-PAL), Latin America & Caribbean regional office.
- Location: Universidad Torcuato Di Tella, Buenos Aires, Argentina.
- Duration: Monday 24–August through Thursday 27–August, 2015.
- Schedule: 9.00am–12.00pm & 1.30pm–5.00pm. See below for details.

2 Instructors

- Matias D. Cattaneo, Associate Professor of Economics, University of Michigan.
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- Sebastian F. Galiani, Professor of Economics, University of Maryland, and Scientific Director, J-PAL Latin America & Caribbean.
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3 Overview and Required Background

This short course provides an introduction to basic principles and recent methodological developments in the analysis of experimental and quasi-experimental research designs in the Social Sciences. The course will focus on three main topics: (i) introduction to causal inference, (ii) analysis of randomized experiments, and (iii) regression discontinuity (RD) designs. A brief outline of the course, along with some background references (including extensions, applications and theoretical results), is given below.

Participants are expected to have elementary working knowledge of statistics, econometrics and program evaluation. It would be useful, but not required, if participants were familiar with basic results from the literature on program evaluation and treatment effects, at the level of Angrist and Pischke (2009). See also Wooldridge (2010) for a graduate level textbook review on econometrics and program evaluation. However, the course is designed to be self-contained and hence most underlying statistical and econometric concepts are explained in class. For more comprehensive technical reviews on causal inference, program evaluation and related ideas are given, see Heckman and Vytlacil (2007) and Imbens and Wooldridge (2009).
4 Outline & Background References

The first three days will focus on causal inference and analysis of experiments. Main background references for the topics covered include Angrist and Pischke (2009), Imbens and Rubin (2015), Glennerster and Takavarashan (2013), Morgan and Winship (2015), and Gerber and Green (2012).

The last day will focus on a quasi-experimental research designs. This year the course will discuss Regression Discontinuity (RD) designs. Main background references include Imbens and Lemieux (2008) and Lee and Lemieux (2010). The course will focus on some recent developments, following the results in Calonico, Cattaneo, and Titiunik (2014b,a, 2015a,b); Cattaneo, Frandsen, and Titiunik (2015).

Day 1 (Mon 24-Aug 2015): Introduction

09.00am – 10.15am: Review of Statistical Inference.
10.45am – 12.00pm: Causal Inference and Experimental Designs.
01.30pm – 02.45pm: Simple versus Cluster Randomization.
03.15pm – 04.30pm: Power Analysis.
04.30pm – 05.00pm: Q&A and general discussion

Day 2 (Tue 25-Aug 2015): Analysis of Experiments

09.00am – 10.15am: Finite-sample inference methods.
10.45am – 12.00pm: Large-sample and non-parametric inference methods.
01.30pm – 02.45pm: Randomization inference methods.
03.15pm – 04.30pm: Empirical Applications in Economics and Political Science.
04.30pm – 05.00pm: Q&A and general discussion

Day 3 (Tue 26-Aug 2015): Departures from canonical RCTs

09.00am – 10.15am: Non-compliance.
10.45am – 12.00pm: Attrition and Bound Analysis.
01.30pm – 02.45pm: Multiple Testing.
03.10pm – 04.30pm: Empirical Applications in Economics and Political Science.
04.30pm – 05.00pm: Q&A and general discussion


09.00am – 10.20am: Introduction to RD designs.
10.45am – 12.00pm: RD designs as “local randomized experiments”.
01.30pm – 02.45pm: Local-polynomial methods.
03.15pm – 04.30pm: Empirical Applications in Economics and Political Science.
04.30pm – 05.00pm: Q&A and general discussion
References


