Econometrics 220E

Instructor

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Office hour: Friday afternoons (Office 228).

Course Information

Class location: ECON 200

Time: Th 9:30 AM - 12:20 PM

1 Course Outline

Econ 220E covers microeconometric methods for causal inference. The material is divided into the following sections:

1. Potential outcomes and experiments

   - Chapter 2 in Angrist and Pischke (2009), Chapters 1, 2 and 7 in Imbens and Rubin (2012)

2. Identification and estimation of treatment effects under unconfoundedness

   - Chapter 3 in Angrist and Pischke (2009), Chapters 12-16 and 18 in Imbens and Rubin (2012), Chapter 21 in Wooldridge (2010), Imbens (2004)

3. Instrumental variables with heterogeneous effects

   - Chapter 4 in Angrist and Pischke (2009), Chapters 23-24 in Imbens and Rubin (2012), Angrist et al. (1996), Abadie (2003), Imbens and Angrist (1994)

4. Difference-in-differences methods

   - Chapter 5.2 in Angrist and Pischke (2009), Abadie et al. (2010), Abadie et al. (2015), Athey and Imbens (2006), de Chaisemartin and D'Haultfoeuille (2016), Lechner (2010), Melly and Santangelo (2015),

5. Regression discontinuity designs

   - Chapter 6 in Angrist and Pischke (2009), Imbens and Kalyanaraman (2012), Imbens and Lemieux (2008), Lee and Lemieux (2010), McCrary (2008)

6. Distributional treatment effects and quantile regression

   - Chapter 7 in Angrist and Pischke (2009), Chapters 1-2 in Koenker (2005), Andrews (1994), Chernozhukov et al. (2013), Firpo (2007), Heckman et al. (1997), Koenker and Bassett (1978)

2 Grading Policy

You will be evaluated based on a short empirical project (50%) and a final exam (50%).

2.1 Empirical Project

The empirical project is based on an empirical paper of your choice which (1) uses a method discussed in this course, (2) for which the data are available online, (3) was published at least at the top-field level after 2005 and (4) is not based on an experiment.

The paper should:

1. Briefly state the research question and discuss the dataset (max. 1 page of text)

2. Provide a (formal) discussion of the identification strategy

3. Replicate (selected) main findings (max. 1/2 page of text)

4. Describe and implement some new and interesting tests for key assumptions, robustness checks, extensions, additional results based on other methods or combinations thereof.

The paper should contain about 8 pages of text (double spaced, 12pt) and no more than 8 additional pages with tables and figures. You may work in groups of three students (each will get the same grade) and use any statistical software you want. The deadline for the paper (incl. code and data to replicate all findings) is **March 9**.

2.2 Final Exam

The final exam will be and in-class exam which covers the whole course material.

3 Course Material

The course material will be available online via TritonEd.

4 References and Textbook

The papers and books indicated in the outline are the main references. I will sometimes refer you to additional references and discuss specific empirical papers.

The course material is self-contained and no textbooks are required. However, you may find it useful to look at (or buy) Angrist and Pischke (2009) and Imbens and Rubin (2012).

All the papers should be available via scholar.google.com when using UCSD WLAN. Please let me know if you cannot find a paper and I will send you a copy.

5 Preexisting Knowledge

This course heavily builds on Econometrics 220A–220D.

References

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