PSC 563
Causal Inference: Applications & Interpretation
Spring 2015
2pm-4:40pm, Harkness 329

Alexander Lee

Instructor:
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Office: Harkness Hall 327
Office Hours: Wednesdays, 10-12 or by appointment

Course Goals:
This course is designed to prepare students to design and implement research projects that rigorously identify causal relationships. The material will examine some of the most common solutions to problems of causal inference in social science, and how they can be fitted to larger programs of hypothesis testing. Techniques to be covered include instrumental variables, regression discontinuity, natural experiments, field experiments, difference in difference and matching. Students will be asked to read and critique recent work from comparative politics and american politics that use these techniques, with an emphasis on applications to substantive questions rather than methodological details. Students will be asked to produce multiple research proposals that use these techniques, and present them in class.

Grading:
Class Participation — 20%
Four short research proposals (15% each) — 60%
Final Research Proposal — 20%

Course Policies:
Unexcused late work will be penalized a whole letter grade, and an additional letter grade for every additional 24 hours of lateness. Plagiarism or cheating will be treated seriously and reported to the Board of Academic Honesty.

Course Requirements:
Attendance and Reading: Students will be graded on their attendance and participation in all classes.

Short Research Proposals: Students should produce a proposal of between 600 and 900 words using the identification strategy discussed in the previous week of class. The proposal should outline the question to be studied, the conclusions of the existing literature, a working hypothesis, the data to be used and justify whether the project satisfies any assumptions inherent in the design. Students will not be required to submit a proposal in one week of their choosing, after giving the professor 24 hours advanced notice. The proposal is due by email at 7pm the evening before it is due. Student will make a short five minute presentation of their ideas in the next class.

Final Research Proposal: Should develop one of their short proposals into a more fully formed idea, with a literature review and detailed discussion of data availability and identification issues. Suggested length, 3000-4000 words.

Readings

Week 1: Introduction
January 13th: Introduction to the class and the subject
Week 2: Randomized Experiments
January 20th: Lecture and Discussion

Readings:


Week 3: Randomized Experiments
January 27th: Student Presentations

Week 4: Natural Experiments
February 3rd: Lecture and Discussion

Readings:


Week 5: Natural Experiments
February 10th: Student Presentations

No Class February 17th

Week 6: Instrumental Variables
February 26th: Lecture and Discussion
Readings:


Week 7: Instrumental Variables
March 2nd: Student Presentations

Week 8: Regression Discontinuity
March 16th: Lecture and Discussion

Readings:


Week 9: Regression Discontinuity
March 23rd: Student Presentations

Week 10: Difference in Difference
March 30th: Lecture and Discussion

Readings:


Week 11: Difference in Difference
April 6th: Student Presentations

Week 12: Miscellaneous Topics
April 13th: Lecture and Discussion

Readings:


Week 13: Final Student Presentations
April 20th: Student Presentations