PSC507: Experiments in Political Science Research

Mayya Komisarchik
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E-mail: mayya.komisarchik@rochester.edu
Web: https://www.mayyakomisarchik.com/teaching
Zoom Office Hours: T 3-5pm or by appointment
Office: 322 Harkness Hall
Class Hours: T/Th 9-10:15am
Class Room: Harkness Hall 112

Classroom Health

As the University of Rochester returns to face-to-face course offerings in fall 2020, the campus community must recognize and address concerns about physical and emotional safety. As such, all students, faculty, and staff are required to uphold the University’s values by actively engaging in behaviors that limit the spread of COVID-19. Such actions include, but are not limited to, the following:

- **Staying home if you are ill or if you believe you have been exposed to someone who is.** The University’s guidelines detailing what to do if you have symptoms or have been exposed to someone who has tested positive can be found [here](https://www.mayyakomisarchik.com/teaching).
  - If this applies to you at any point throughout the semester, please notify me via email and we can set an alternate timeline for assignments and participation.

- Wearing a face mask that covers your nose and mouth throughout the class period and whenever you are indoors on campus.

- Observing social distance in the classroom. If enrollment size makes this impossible, we will find a larger classroom than the one currently assigned.

- Conducting all office hours and appointments via Zoom. Please use the following Zoom link in order to attend: [https://rochester.zoom.us/j/97464117394](https://rochester.zoom.us/j/97464117394)

- Complying with directions from health care providers or public health officials to quarantine or isolate if ill or exposed to someone who is ill.

Please note that COVID-19 is a developing situation. All of these guidelines are subject to change in response to University policy and shifting levels of risk. Please check University web resources and Blackboard regularly for updates.
Course Description

Researchers in comparative politics, American politics, international relations, political methodology, and political theory increasingly rely on data collected from various types of experiments to answer important questions in their fields. This class is designed to introduce students to experimental techniques and the applications of experiments in political science. In addition to learning the techniques, we will discuss generalizability, usefulness, and ethical issues surrounding experiments. While this is primarily a seminar course, we will cover statistical material and get a hands-on introduction to programming tools for experimental research in R. This course is not specific to a particular subfield; we will cover a wide range of experimental methods (lab experiments, field experiments, surveys, etc.) used across different research areas.

Prerequisites

This is a graduate-level course. This course assumes a familiarity with probability theory, statistical and causal inference, and R. Students who take this course should have had some exposure to probability and inference linear models, and causal inference. I am happy to consider exceptions but please be aware that (1) problem sets are a part of the course and (2) I will not be reviewing the fundamentals of working with R, regression, or causal inference explicitly during class.

Class Structure

This class is designed to prioritize structured discussion over lecture. Student discussants will introduce weekly topics and guide discussion during most class sessions. I will start discussion with a brief review during some of the methods weeks and make the corresponding lecture notes available on the course website.

Discussants

Everyone in the class must sign up to serve as a discussant for at least one class meeting. The student discussant for each class session will:

1. Introduce and summarize the readings
2. Raise questions for discussion by the rest of the class
3. Initiate and guide the discussion in class

Assignments

Final grades for the course will be based on:

   **Class Participation (15%)**: In-class discussion is an important part of this course, and students are expected to contribute regularly to the conversation. Participation can take a variety of forms, including (but not limited to): serving as discussants for class sessions, asking questions of me or other students in the class, answering questions I pose in class,
answering questions posed by other students, or offering commentary on course materials. Quality is more important than quantity.

**Problem Sets (15%)**: You will complete two problem sets over the course of the semester. These problem sets are not designed to be punishing, but they will guide you through some useful experimental design and analysis exercises and provide you with exposure to some R tools for experiments.

**Final Project (70%)**: The purpose of this course is to get you started on your own experiments. Accordingly, the capstone project for this class will be a final paper based on an experiment that you design and implement (at minimum, in pilot form) during the semester. You may have to work in teams depending on enrollment. In order to give you a chance to get feedback in the design stage as well as the analysis stage of your final project, you will turn in your final projects in the following stages:

- **Research Design Memo and Presentation (10%)**: You will submit a short (1-2 page) memo summarizing your research design and your plan for analyzing your data. Think of this as a preregistration memo. We will likely present these in class to give you workshop-style feedback on your ideas. These are due **Monday, October 14, 2020**, and they should be circulated to everyone in the class before we present designs on **October 15, 2020**.

- **Final Paper (45%)**: Every student (or group) must submit a final write-up of their experiment, including: an introduction to the research question and contribution, a detailed description of the research design, a summary of the data, analysis and results, any relevant robustness checks, and a discussion of the results and their limitations. Final papers must be submitted via Blackboard no later than **Monday, December 14, 2020**.

- **Final Paper Presentation (15%)**: You will present your results on the last day of class, **Tuesday, December 8, 2020**.

- **IRB**: Please note that you must complete your IRB certification and have the protocol for your experiment approved by the IRB before you begin running your experiment.

**Academic Honesty**

I wholeheartedly encourage collaboration. You may work together on the problem sets, but every student must submit individual solutions and code. Copying publicly available solutions wholesale violates the spirit of this course and this program.

**Resources**

If there are accommodations of any sort that would make the class work better for you, please come talk to me about it.
If you think you may need to seek accommodations due to a disability, the Office of Disability Resources (http://www.rochester.edu/college/disability/index.html) can help you figure out your options. Speaking with faculty about disability-related accommodations is strictly confidential; I encourage you to come see me with concerns or requests.

Other resources that may prove helpful during your time at the University of Rochester:

- CARE (https://www.rochester.edu/care/about.html).
- The Writing & Speaking Center (http://writing.rochester.edu/index.html)
- Tutoring (http://www.rochester.edu/college/cetl/undergraduate/tutoring.html)
- University Counseling Center (http://www.rochester.edu/uhs/ucc/)
- David T. Kearns Center (https://www.rochester.edu/college/kearnscenter/)
- Office of Minority Student Affairs (http://www.rochester.edu/College/OMSA/)

**Required Readings**

Most readings for this course will be made available in electronic form on the course website. We will be reading excerpts from the following books in class; these can be purchased online via Amazon.com and other online retailers. They should also be on reserve at the Rush Rhees Library.

**Books**


Schedule

This schedule is tentative. Please come to class each Tuesday or Thursday prepared to discuss the readings listed for that date. All readings marked with an ‘∗’ are recommended, but not required.

Part I: Introduction to Experiments and Experimental Inference

Thursday, 08/27   Experiments in the Discipline

- EPS. Chapter 2: 33-58 (skip 2.4.3)


- Discussant sign up

- Complete CITI training and certification (Access it Here)

Tuesday, 09/01   Validity

- EPS Chapter 7: 253-276

- CHEPS Chapter 3: 27-40


Part II: Design and Analysis

Thursday, 09/03   Power

- FEDAI Appendix 3.1: 93


- Gelman, Andrew and John Carlin. “Beyond Power Calculations: Assessing Type S (Sign) and Type M (Magnitude) Errors.” Perspectives on Psychological Science. 2014. 9 (6): 641-651

Tuesday, 09/08  Estimating Treatment Effects

- FEDAI. Chapters 2-3: 21-92


Thursday, 09/10  Covariates in the Design Phase

- FEDAI. Chapter 4: 95-130


Tuesday, 09/15  Covariates in the Analysis Phase


Thursday, 09/17  Noncompliance

- FEDAI Chapters 5-6: 131-209


Tuesday, 09/22  Mechanisms

- FEDAI Chapter 10: 319-346


Part III: Types of Experiments

Thursday, 09/24  Lab Experiments I

- CHEPS Chapter 6-7: 73-101


- CHEPS Chapter 4: 73-101

**Tuesday, 09/29  Lab Experiments II**


**Thursday, 10/01  Lab Experiments III  Problem Set 1 Due**


Tuesday, 10/06  Survey Experiments I

- EPS 8.2.1-8.2.2: 278-295
- CHEPS Chapter 8: 102-114

Thursday, 10/08  Survey Experiments II


Tuesday, 10/13  Survey Experiments III


**Thursday, 10/15**  **In Class Research Design Workshop**

- Present your research design ideas in class and we will workshop them!

**Tuesday, 10/20**  **Conjoint Experiments I**


**Thursday, 10/22**  **Conjoint Experiments II**


**Tuesday, 10/27  Field Experiments I**

- CHEPS Chapter 9: 115-138


**Thursday, 10/29  Field Experiments II**


Tuesday, 11/03  Natural Experiments I


Thursday, 11/05  Natural Experiments II  Problem Set 2 Due


**Part IV: Ethics and Transparency**

**Tuesday, 11/10  Ethics I**

- EPS Chapters 12-13: 455-521

- CHEPS Chapter 5: 58-69

- Humphreys, Macartan. “Ethical Challenges of Embedded Experimentation.” [Access it here.](#)


- *Nickerson, David. “When the Client Owns the Data.” The Experimental Political Scientist.* 2011. 2(2): 5-6
Thursday, 11/12  Ethics II

Affecting the Outcomes of Elections


  – You might be interested in Chris Blattman’s response entitled “Is It OK for Researchers to Mess with Elections?” [Access it here](#).

  – or Thomas Leeper’s response “In Defense of the Montana Experiment” [Access it here](#).

Causing Harm


  – “Resnick, Brian. “The Stanford Prison Experiment was Massively Influential. We Just Learned It Was A Fraud.” *Vox*. June 13, 2018. [Access it here](#).

Uses of Public Time


Part V: Applications

Tuesday, 11/17  Voting


**Thursday, 11/19 Development**


**Tuesday, 11/24 Intergroup Conflict**


**Thursday, 11/26**  No Class. Thanksgiving Break. *All classes go online after 11/25.*

**Tuesday, 12/01**  Race


**Thursday, 12/03**  Social Media


**Tuesday, 12/08 Final Presentations**

- Present your final projects in class!