Experimental Political Science

Experiments are a central methodology in political science. Scholars from every subfield regularly turn to experiments. Practitioners rely on experimental evidence in evaluating social programs, policies, institutions, and information provision. The design, implementation, and analysis of experiments raise a variety of distinct epistemological and methodological challenges. This is particularly true in political science due to the breadth of the discipline, the varying contexts in which experiments are implemented (e.g., laboratory, survey, field), and the distinct methods employed (e.g., psychological or economic approaches to experimentation). This class will review the challenges to experimentation, discuss how to implement experiments, and survey prominent applications. The class also will touch on methodological advances in experiments and ongoing debates about the reliability of experimental studies. The class typically meets on Tuesdays from 1:00PM-3:50PM in the Ripton Room (201 Scott Hall).

The first two class sessions will provide background and address general issues in the design, implementation, and analysis of experiments. These sessions will involve a mix of lecture and discussion. From there, there are many ways to organize the field and we opt for one based on the approach and venue in which the experiment is implemented – in short, we will have sessions on laboratory experiments, survey experiments, field experiments, and natural experiments. As will be clear, these classes overlap, and thus, one should not view the distinctions as ironclad. The last three sessions turn to more advanced methods, questions about the analysis/reporting/publication of experimental results, and debates about replication.

Assignments
Each student will be assigned two weeks of the course (at the start of the quarter). For assigned weeks, the student will write an approximately three-page (double-spaced) paper reviewing and critiquing a subset of the readings, and – importantly – isolating areas in which more work is needed. The paper should conclude with discussion questions (that do not count toward the three-page limit). The paper must be distributed to all class members, via e-mail, by 3:00 PM two days before class. The student will use the paper as the basis to help lead class discussion. For many of these weeks, students can choose from a selection of topical/applied readings; this does not mean we will equally touch on all topical readings each week. The instructor will make clear which readings will receive more or less attention in a given week during the prior week’s session.

The other major task for the class is a final paper. This paper should review a literature where experiments have been employed, isolate an unanswered question, and design an experiment to address the question. Students are expected to identify their topic by week 2, complete a literature review by week 5, design the basics by week 7, and submit the paper by 5:00PM on December 12th. Students are strongly encouraged to write on novel topics, rather than to re-
use prior work from other classes. If a student wants to re-use work or build on prior work, he/she should contact the instructor within the first week of class.

The last part of many classes will involve selected students presenting and discussing their projects. Students may be given notice the week before and may be asked to distribute material prior to the class.

**Date Changes**
The October 8th class will end at 4:20PM. The November 5th class will run from 2:00PM-4:50PM (if this is problematic for anyone, please inform the instructor by the second week of class). There will be no class on November 19th. The latter class, if needed, will be made-up on Thursday 12/5 or Friday 12/6 (there is no class otherwise that week as it is reading week).

**Grading**
The course grade will be determined as follows: class participation (25%), topical papers (25%), and the final paper (50%). Note that participation weighs heavily on the final grade and thus active contributions are expected.

**Course Policies**
Attendance is absolutely mandatory. Students are expected to come to class prepared to discuss, in detail, *all of the assigned readings*. Students may be asked to present specific assigned readings *without* prior notice. When so doing, be prepared to discuss main themes, contributions, problems, and unanswered questions.

Late assignments will not be accepted, including the topical papers which are strictly due by 3:00PM two days prior to the given class. Exceptions will only be made for religious holidays, illness (verified by a note from a health care provider), serious family emergencies, subpoenas, jury duty, military service, and participation in group activities sponsored by the university. *Note:* this means a late assignment, without a legitimate excuse, will not be read or accepted (a score of 0 will be assigned). Do not even request turning in an assignment late without a legitimate excuse.

The topical papers can be sent via e-mail. All other assignments must be printed single-sided and stapled with the student’s name, date, and page numbers included. Do not e-mail other assignments. Failure to satisfy these requirements will lead the assignment to be not accepted (also do not wait to look for a stapler at the start of class – staple your assignments prior to class).

**Readings**
Substantial amounts of reading come from the texts listed below. Each is also an excellent resource to own and thus you are recommended to invest in purchasing these books (although copies of the books will be available for scanning from the instructor). Other readings are available via JSTOR or from the instructor. Some of the readings may be changed as the course progresses. The instructor will make changes clear at least one week in advance of a given class.

Shadish, William, R, Thomas D. Cook, and Donald T. Campbell. 2002. *Experimental and


Course Outline

Class 1, September 24. Research Design, Surveys, and Experiments in Political Science


HB: Chapters 1, 2.


Class 2, October 1. Causation, Validity, and Ethics

HB: Chapters 3, 4.


Go through the IRB Office’s Social Behavioral Protocol Template, available here: https://irb.northwestern.edu/templates-forms/templates-forms-sops


Class 3, October 8 (end at 4:20). Laboratory Experiments

HB chapters 5, 6, 7; then choose two from this list of chapters: 10, 11, 12, 13, 14, 15, 18, 20, 21, 22, 23, 29, 30; and one from this list of chapters: 17, 24, 25, 26, 28.


Choose one of the following:


Choose one of the following:

    Ostrom, Elinor. 2009. “Why Do We Need Laboratory Experiments in Political Science?” Indiana University, Bloomington: School of Public & Environmental Affairs Research Paper No. 2008-11-03


**Class 4, October 15. Survey Experiments**

HB chapter 8, 31.


Choose one of the following:


**Class 5, October 22. Field Experiments**

HB chapter 9; then choose one of the following: HB Chapters 16, 19, 27, 33.

Choose one of the following:


Choose one of the following:


Coppock, Alexander, and Donald P. Green. 2015. “Assessing the Correspondence between Experimental Results Obtained in the Lab and Field: A Review of Recent Social Science Research.” *Political Science Research and Methods* 3: 113–131.

**Class 6, October 29. Natural Experiments**

Choose two of the following:


**Class 7, November 5 (start at 2:00, end at 4:50). Mediation, Moderation, and Spillover Effects**

HB Chapters 33, 35.


Choose one of the following:


of Heterogeneous Treatment Effect Estimates Across Samples” *Proceedings of the National Academy of Science* 115: 12441-12446


Choose one of the following:


Choose one of the following:


**Class 8, November 12. Statistical Power and Publishing Experiments**


Choose one of the following:


Choose one of the following:


Skim the following:


November 19. No Class.

Class 9, November 26. Replication


Choose one of the following:


Class 10, December 5 or 6 if needed (Reading Week)