PSC/IR 389: Senior Honors Seminar

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OHs: Thursdays 12:30-2:30

General Information

This course will teach students how to write an original social scientific research paper. Students enrolled in the class are expected to complete a thesis in the spring. In this course, they will choose a research topic and question, find an advisor in the political science department, read the relevant literature, generate hypotheses, choose appropriate cases for quantitative or qualitative analysis, begin collecting data, think about strategies for addressing confounding concerns, and at the end of the semester produce a paper of roughly 12-15 pages that constitutes a draft of the final thesis. Along the way, students will read high-quality published articles, learn how to interpret regression tables and how to produce their own, understand pros and cons of various research design techniques, replicate a published research article, and learn how to organize and to write a research paper. This course is primarily geared toward teaching students how to write statistical empirical research papers, although it will also provide guidance for writing theses using game theory or qualitative methods.

Reading and software

All the readings will be uploaded to the course website. Although there are no required texts, the following book may be helpful because it reviews basic statistics and regression techniques in an intuitive manner:

> Freedman, David, Robert Pisani, and Roger Purves. 1997. *Statistics, Third Edition*. New York: W. W. Norton and Co.

Although there is a newer fourth edition, I list the third edition because it is cheaper used on Amazon. The material in Sections III, V, and VIII is particularly pertinent for this course.

This course will teach students the basics of the statistical package STATA. Although it is not required for students to purchase a personal STATA license, students may find it more convenient to have STATA on their computer rather than to have to go to the library to complete the handful of assignments that will require STATA or to conduct data analysis for their project. The one-year student site license is somewhat expensive, at $125, although this price may appear more reasonable when thinking about STATA as a textbook. The UR IT site (http://tech.rochester.edu/software/stata/) links students to the following website to purchase the software:
http://www.stata.com/order/new/edu/gradplans/campus-gradplan/.

Grading
- **20% Replication paper:** The first major assignment of the course is a roughly 5-page replication paper. The minimal requirements are a paper with two regression tables: one that replicates a table verbatim from an existing article, and one that makes some changes chosen by the student. Students are encouraged to explore various datasets and to be creative with how they alter existing empirical setups. Alternative assignments may be substituted for students planning to complete a thesis without a statistical component (e.g., game theory or qualitative).
- **30% "Final" paper:** At the end of the semester, students will hand in a 12-15 page paper that either constitutes a rough draft of the final spring thesis project or otherwise makes progress toward the final thesis.
- **25% Other written assignments:** There will be a series of short papers written in response to the readings in advance of class meetings, as well as other written assignments on a near-weekly basis.
- **25% Class participation:** Your participation grade will depend not simply on attending, but mainly on your contributions to the discussion. This includes completing the required readings and reading other articles relevant to your thesis project. It is particularly important to actively engage your classmates' research ideas and to provide constructive feedback.

Submitting assignments and late policy
All written assignments for class, unless otherwise stated, are due via email by 5pm on the Monday before the class for which they are assigned. Late assignments will not be accepted. Additionally, all readings are to be completed prior to the class for which they are assigned.

Attendance
Attendance is required at all sessions. Please notify me of any known and unavoidable absences (e.g., University-sponsored academic or sporting event) at the beginning of the semester, and any unforeseen circumstances (e.g., death in the family, illness) as soon as possible as they arise. I understand that unforeseen events occur on occasion, but it is your responsibility, not mine, to keep me informed.

Schedule of classes

Part I. How to begin a research project

September 6 – What is social science research? Examples from UR faculty
Reading:
- Lee, Alex and Jack Paine. 2016. "Did British Colonialism Promote Democracy? Divergent Inheritances and Diminishing Legacies." Working paper, Department of Political Science, University of Rochester.
- Lacina, Bethany. 2015. "Periphery vs. Periphery: The Stakes of Separatist War." *Journal of Politics*, 77(3): 692-706.
- Chiou, Fang-Yi and Lawrence S. Rothenberg. 2014. "The Elusive Search for Presidential Power." *American Journal of Political Science*, 58(3): 653-668.

Assignment: There is no written assignment due. However, in addition to being prepared to analyze the readings, we will also discuss students' ideas about possible senior honors projects. It may be useful to look back at syllabi from old courses and glance at any readings that particularly interested you. What type of topic might you want to pursue?

September 9-ish – TA session: Statistics review (Time TBD)

September 13 – More examples of social science research, and collecting data
Guest speaker: Hein Goemans (UR political science faculty) will speak about collecting data.
Reading:
- Paine, Jack. 2016. "Rethinking the Conflict 'Resource Curse': How Oil Wealth Prevents Center-Seeking Civil War." *International Organization*, forthcoming.
- Gamm, Gerald and Steven S. Smith. 2000. "Last among Equals: The Senate's Presiding Officer," in *Esteemed Colleagues: Civility and Deliberation in the U.S. Senate*, Ed. Burdett A. Loomis. Washington, D.C.: Brookings, pp. 105-34.

September 20 – Finding existing datasets and sources
- **Guest speaker:** Justina Elmore (UR social science librarian). This class may be held at Rush Rhees library rather than in our normal classroom.
- **Assignment:** Write about a paragraph that briefly describes one or several topics you may want to pursue, any datasets you have used, and the type of data you might be interested in. These are due by 5pm on Sunday, Sep. 18. I will email these to Justina to help target her presentation. Note that you will write a slightly longer preliminary project proposal next week.
- **Reading:** No assigned readings. You are expected throughout the semester, though, to find and read articles or books related to your honors thesis topic. Consult with me or other members of the political science department if you would like suggestions. You may want to get started on the readings for next week because you also have to hand in a proposal for your paper next week.

September 23-ish – TA session: STATA (Time TBD)

Part II. Techniques of analysis

September 27 – Experiments and thinking about causal inference
Requirement: Students must have spoken to at least one other member of the political science department by now about their project ideas.
Reading:
- Tomz, Michael. 2007. "Domestic Audience Costs in International Relations: An Experimental Approach." *International Organization* 61(4): 821-840.
- Huber, Gregory A., Seth J. Hill, and Gabriel S. Lenz. 2012. "Sources of Bias in Retrospective Decision Making: Experimental Evidence on Voters' Limitations in Controlling Incumbents." *American Political Science Review*, 106(4): 720-741.
- Some recent commentary on MTurk:
  - https://www.washingtonpost.com/blogs/monkey-cage/wp/2015/05/04/researchers-are-rushing-to-amazons-mechanical-turk-should-they/
  - http://duckofminerva.com/2013/07/mechanical-turk-and-experiments-in-the-social-sciences.html
  - https://michaelbuhrmester.wordpress.com/mechanical-turk-guide/
- Read the appendix to Green, Donald P. and Alan S. Gerber. 2012. *Field Experiments: Design, Analysis, and Interpretation*. New York: W.W. Norton & Company.

Two assignments (see note above about due dates for assignments):
- Write a short response (approximately 300 words) that answers all of the following questions:
  - In each article, what is the unit of analysis? Which variable is randomly assigned by the experimenter? Which regression table conveys the main results? No additional explanation is required for these questions.
  - In your opinion, for which article does the evidence most convincingly support the hypothesis? Please explain in one paragraph.
  - Based on reading these articles, what are the main virtues of testing a hypothesis with experimentally generated data? What are the main drawbacks? Write one or two paragraphs on these questions that use specific examples from the articles.
  - What experimental design, feasible (i.e., within your means) or not, might be appropriate to learn about your topic?
- Write a short description (no more than 500 words) of at least two possible projects that you might undertake. Discuss datasets you may use. Briefly discuss at least two published articles that have influenced your project idea. Additionally, read others' proposals and be prepared to discuss them in class. Email your proposals both to myself and to your classmates.

Recommended sources for students interested in experiments (not required reading)
- Green, Donald P. and Alan S. Gerber. 2012. *Field Experiments: Design, Analysis, and Interpretation*. New York: W.W. Norton & Company.
- See the syllabus for Green and Gerber's experiments course in the readings folder
- https://www.amazon.com/Running-Randomized-Evaluations-Practical-

- Be mindful of ethical issues when running experiments:
  http://www.nytimes.com/2014/10/29/upshot/professors-research-project-stirs-
  political-outrage-in-montana.html?_r=0

October 4 – Additional quantitative techniques for dealing with confounders
- Hyde, Susan D. 2007. "The Observer Effect in International Politics: Evidence from a Natural Experiment." *World Politics* 60(1): 37-63.
- Ladd, Jonathan McDonald and Gabriel S. Lenz. 2009. "Exploiting a rare communication shift to document the persuasive power of the news media." *American Journal of Political Science* 53(2): 394-410.
- Jason Lyall. 2010. "Are coethnics more effective counterinsurgents? Evidence from the Second Chechen War." *American Political Science Review* 104(1): 1-20.

Two assignments:
- Write a short response (approximately 300 words) that answers all of the following questions:
  - In each article, which variable does the author wish they could have randomly assigned? Which regression table conveys the main results? No additional explanation is required for these questions.
  - In your opinion, for which article does the evidence most convincingly support the hypothesis? Please explain in one paragraph.
  - In your opinion, for which article does the evidence least convincingly support the hypothesis? Please explain in one paragraph.
  - Briefly describe how you might be able to use one of these techniques for your own paper.
- Hand in assigned worksheet on interpreting a regression table.

At the end of class, we will discuss guidelines for the replication papers.

Recommended sources for students interested in writing a statistical empirical paper (not required reading)
- *Mostly Harmless Econometrics:* https://www.amazon.com/Mostly-Harmless-Econometrics-Empiricists-Companion/dp/0691120358/ref=sr_1_1?ie=UTF8&qid=1472261156&sr=8-1&keywords=mostly+harmless+econometrics
- Dunning, Thad. 2012. *Natural Experiments in the Social Sciences: A Design-Based Approach*. New York: Cambridge University Press.

October 11 – Qualitative methods, game theory
Readings:
- Dunning, Thad. 2008. *Crude Democracy: Natural Resource Wealth and Political Regimes.* New York: Cambridge University Press, pp. 148-166.
- Waldner, David. 2014. "What Makes Process Tracing Good? Causal Mechanisms, Causal Inference, and the Completeness Standard in Comparative Politics*.*" In *Process Tracing: From Metaphor to Analytic Tool*, Eds. Andrew Bennett and Jeffrey T. Checkel. New York: Cambridge University Press, pp. 126-152.
- Glynn, Adam N. and Nahomi Ichino. 2015. "Using Qualitative Information to Improve Causal Inference." *American Journal of Political Science*, 59(4): 1055-1071.
- Powell, Robert. 2006. "War as a Commitment Problem." *International Organization*, 60(1): 169-203.

Assignment: Write a short response (approximately 300 words) that answers all of the following questions:
- How can one make inferences with qualitative methods? Use examples from the readings.
- What is the causal argument in Dunning (2008)? How convincingly does he support this hypothesis?
- What is a commitment problem? How can this lead to war?

We will discuss project ideas at the end of class.

October 18 – Enjoy fall break!

Part III. Actively engaging published research

October 25 – Project proposal and literature review
Two assignments (but no reading!):
- Hand in a second draft of a paper proposal. You are also required to have chosen a thesis advisor by this date, and must discuss your proposal with your advisor prior to handing it in for this assignment. Like the first proposal, it should be roughly 500 words, but should be more focused than before (and should only contain a single project idea). It may be longer for students with a clearer idea for the project they want to pursue.
- Hand in a five-page literature review. Following instructions that I will have provided earlier, it should be an "active" literature review.

November 1 – Replication papers
Assignment: Replication paper.

Part IV. Writing an original research paper

Topics to be covered include how to write a research paper, handing in an outline, producing a table and/or figure for the project to discuss with the class, handing in a draft, and completing the "final" fall paper. We may also discuss advanced methods topics as relevant for students' projects.