#### POL 350 Research Methods in Political Science Princeton University Department of Politics Fall 2012

TR 1:30-2:20 Bendheim Center For Finance 103 Prof. John Kastellec jkastell@princeton.edu Office Hours: Tuesday 3-4:30, or by appointment

#### Introduction

This is an introductory undergraduate course in research methods for Politics majors. The material is chosen to convey an understanding of research design, choice of methods, and analysis. Both qualitative and quantitative methods will be covered. While this is not a course in statistics, we will cover some basic concepts in statistics and probability in order to prepare students both to consume academic research and produce their own research effectively. The goal of the class is to give students the tools they need to write successful junior papers and senior theses. However, knowing how to collect and evaluate evidence to answer specific questions will also be highly valuable beyond your undergraduate experience.

#### Prerequisites

There are no formal requirements, but at least one course in political science or previous exposure to political science topics and debates are strongly recommended, as is knowledge of high-school level algebra.

#### **Course Requirements**

Your grade in this class will be based on the following:

- Midterm Exam: 20%
- Final Exam: 30%
- Class/Precept Participation: 10%
- Assignments: 20%
- Final Paper: 20%

#### Exams

The midterm exam will be given in class on Oct. 25<sup>th</sup> (the last class before Fall Break). The final exam will be given during the exam period in January. Makeup exams will not be given except under extreme circumstances and with official university permission.

#### **Final Paper and Assignments**

There are five short assignments and one final paper to be completed over the course of the semester. The goal of the final paper is for you to pose a research question and develop an effective research design. Although you will not actually carry out an empirical analysis, coming up with a design and plan to execute that design is an essential component of any political science

research endeavor. In order to connect the lessons of the course with your independent research, I will encourage (though not require) junior and senior politics majors to integrate this project with their junior workshop paper and senior theses, respectively. That is, students can write their final paper on the same topic as their workshop paper or senior thesis. The idea is not to simply to duplicate your independent work. Rather, the idea is for you to use the research proposal in this class as way to organize your thinking on your independent work and support its advancement over the course of the semester. You are *not* permitted to hand in a first draft of your junior paper or a thesis chapter in order to fulfill the paper assignment in this course. As you will see, the paper in this course will ask you to discuss things that would not normally appear in a regular paper or thesis, while your independent work will go much further in its presentation and analysis than is required of the paper here.

Freshman and sophomores will have the option of integrating their paper with a course paper in another political science class. However, you will need the express permission of myself and the instructor of that class.

Like your independent work, the final paper in this course will be an incremental process, as you will need to incorporate the lessons and tools we will cover across the semester intro your paper. To that end, two of the five assignments (Assignments 2 and 4) are designed to help you develop your research proposal. The final paper is due in class on 12/13. I strongly encourage you to look at the paper guidelines early in the semester, and then work on the individual components of the research proposal as we cover the relevant material over the course of the semester. Also, while the literature review for the proposal (Assignment 4) is not due until Nov. 15th<sup>th</sup>, you will want to consult the literature well before this.

Detailed instructions for each assignment and the final paper can be found in the Assignments folder on Blackboard. Here is a brief summary of each, along with the date on which they are due:

- Assignment 1 (9/20): Find a senior thesis in Mudd Library you are interested in and evaluate the question and methods of the thesis.
- Assignment 2 (9/27): Choose two or three research questions you are interested in developing into a research project.
- Assignment 3 (10/11): Measuring a political science concept.
- Assignment 4 (11/15): Write a literature review related to your research question.
- Assignment 5 (12/4): Perform a statistical analysis and report the results.

Late assignments and papers will be penalized 10% for every 24 hours late, unless there is a legitimate, documented excuse.

#### Precepts

Precept attendance is mandatory, and all students will be expected to contribute to each week's discussion. We will use the Sectioning Tool on Blackboard to assign precept. You will have until 11:59 p.m. on Sunday, September 16th, to indicate your preference on Blackboard. I will do my best to accommodate everyone's preferences.

Please note that there are separate readings for the lectures and the precepts, though generally the topics will overlap, and some weeks there are no additional readings. When there are designated readings, it is essential that you do the readings for each week's precepts. At the start of each

precept I will give students the opportunity to ask questions about that week's lectures. So, if you are confused about something, please ask for clarification. In many weeks, we will use precepts to conduct exercises designed to illustrate the topics of the course that week. This will often entail you working in small groups together.

#### **Books and Readings**

The following books are available at Labyrinth Books:

- Paul M. Kellstedt and Guy Whitten. 2009. *The Fundamentals of Political Science Research*. Cambridge University Press.
- Gary King, Robert Keohane; and Sidney Verba. 1994. *Designing Social Inquiry: Scientific Inference in Qualitative Research*. Princeton University Press: Princeton.

Several used copies of each book are available online. There will also be additional readings available either through Blackboard **[BB]** or electronic reserve **[ER]**.

Many of the readings will include mathematical and statistical material that you may not be familiar with. It is not important that you understand the technical details of each chapter or article; rather, you should evaluate the arguments made and the evidence used to support these arguments. We will cover basic mathematical and statistical concepts in lecture—so, as the semester progresses, the material will become more accessible to you.

Also, the nature of this course is that it emphasizes breadth over depth. As such, for each topic there are countless more readings you could seek out if you're interested (for example, on how to conduct your own experiments). If there are any subjects which you are interested in pursuing further beyond this class, I'm happy to suggest additional readings and courses you might pursue.

#### **Data Analysis**

In November, you will get hands on experience in conducting basic statistical analysis. Precept on November 29<sup>th</sup> will be held in the Data & Statistical Services (DSS) Lab, located in Firestone Library A-16-H-3, in which you will receive a training session on using the statistical package Stata. Following this session, you will complete an assignment in which you analyze data.

If you are interested in undertaking more statistical training on your own, Oscar Torres-Reyna at DSS will a hold of series of three-hour sessions during the semester. See <a href="http://dss.princeton.edu/cgi-bin/dataresources/guides.cgi">http://dss.princeton.edu/cgi-bin/dataresources/guides.cgi</a> for more details.

#### **Class Schedule and Readings**

The schedule of readings appears below. Note that the schedule is a plan and not set in stone: some topics may take longer to cover than the allotted weeks, while some may take less. I may update and revise the schedule over the course of semester—I will let you know if any changes take place.

#### Week 1 (9/13): Introduction to course

• No readings or precept

#### Week 2 (9/18 & 9/20): Introduction to political science, as a science

- Lecture
  - Charles Cameron, "What is Political Science?" and "The Politics of Supreme Court Nominations," in *A Quantitative Tour of the Social Sciences*, ed. Andrew Gelman and Jeronimo Cortina, pp. 207-241 **[BB]**
  - o Fundamentals, Chapters 1-2
  - *KKV*, Chapter 1
- Precept
  - No additional readings
- Assignment 1 due in precept on Sept. 20<sup>th</sup>
  - Come to precept prepared to discuss the assignment.

#### Week 3 (9/25 & 9/27): Understanding Causality

- Lecture
  - Fundamentals, Chapter 3
  - o KKV, Chapter 3
  - Jonathan Kastellec, "Racial Diversity and Judicial Influence on Appellate Courts." [**BB**]
- Precept
  - Stephen Levitt and Stephen Dubner. 2005. "Where Have all the Criminals Gone?" in *Freakonomics*. New Yorker: Harper Collins. **[ER]**
- Assignment due in precept on Sept. 27<sup>th</sup>

# Week 4 (10/2 & 10/4): Experiments: Real and Quasi

- Lecture
  - o Fundamentals, pp. 67-77
  - Francesco Guala. 2005. "Causation and Experimental Control," in The Methodology of Experimental Economics. Cambridge: Cambridge University Press. [BB]
- Precept
  - Marianne Bertrand & Sendhil Mullainathan. 2004. "Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination." *The American Economic Review*. 991-1013. [BB]
  - Shai Danzigera, Jonathan Levavb, and Liora Avnaim-Pessoa. 2011. "Extraneous Factors in Judicial Decisions." *Proceedings of the National Academy of Sciences*. 108: 6889–6892. [BB]

# Week 5 (10/9 & 10/11): Conceptualization, Measurement and Descriptive Statistics

- Lecture
  - Fundamentals, Chapters 5-6
  - *KKV*, *Chapter 2*
- Precept
  - Michael McDonald and Samuel Popkin. 2001. "The Myth of the Vanishing Voter." *American Political Science Review* [**BB**]
- Assignment 3 due in precept on Oct. 11<sup>th</sup>. Come prepared to discuss your assignment.

#### Week 6 (10/16 & 10/18): Observational studies

- Lecture
  - Freedman et al, "Observational Studies," in *Statistics: Fourth Edition*, pp. 12-20. **[ER]**
  - Fundamentals, pp. 77-84.
  - 0 KKV, Ch. 4
  - Collier et al. "Sources of Leverage in Causal Inference," in *Rethinking Social Inquiry*, eds. Henry Brady and David Collier, pp.182-196. **[ER]**
  - Geddes, Barbara. 1990. "How the Cases You Choose Affect the Answers You Get: Selection Bias in Comparative Politics" *Political Analysis* 2(1): 131-150.
    [BB]
- Precept
  - Richard Fenno. 1977. "US House Members in their Constituencies: An Exploration." *American Political Science Review*, 71(3):883-917 [BB]

#### Week 7 (10/23): How to Write and Present a Research Paper

- Lecture
  - "Why Conduct a Literature Review," and "The Research Report: An Annotated Example," from Johnson & Reynolds' *Political Science Research Methods*. [BB]
  - Tufte, Edward. 1997. "Visual and Statistical Thinking: Displays of Evidence for Making Decisions." in *Visual Explanations*. Cheshire, Connecticut: Graphics Press. pp. 27–37. [ER]

#### Midterm: 10/25

#### Fall Recess: No class 10/30 & 11/1

# Week 8 (11/6 & 11/8): Probability

- Lecture
  - Larry Gonick and Woollcott Smith. 2005. "Probability." in *The Cartoon Guide to Statistics* **[BB]**
- Precept
  - Robert Pape. 2003. "The Strategic Logic of Suicide Terrorism" American Political Science Review 97(August): 343-61. [BB]
  - Ashworth et. al. 2008. "Design Inference and The Strategic Logic of Suicide Terrorism" *American Political Science Review* 102(May): 269–73. **[BB]**

# Week 9 (11/13 & 11/15): Sampling and Surveys

- Lecture
  - Fundamentals, Chapter 7
  - David Freedman et al, "Sample Surveys," in *Statistics: Fourth Edition* [ER]
- Precept
  - No additional readings
- Assignment 4 due in precept on Nov. 15<sup>th</sup>.

# Weeks 10 & 11 (11/20, 11/27 & 11/29): Correlation, Causation and Regression

- Lecture
  - Fundamentals, Chapters 8-9
  - David Freedman. 1991. "Statistical Models and Shoe Leather." Sociological Methodology 21:291-313. [BB]
- Precept (11/29)
  - You will attend a training session on using the statistical program Stata at the Data & Statistical Services Lab, located in Firestone Library A-16-H-3.

# Week 12 (12/4 & 12/6): Obstacles to Inference: Endogeneity, Ecological Inference and Selection Bias Revisited

- Lecture
  - o KKV, 185-196
  - David Freedman. 1999. "Ecological Inference and the Ecological Fallacy." University of California Technical Report. [BB]
  - Andrew Gelman and David Weakliem. 2009. "Of Beauty, Sex and Power." *The American Scientist*. 97:310-316. **[BB]**
- Precept
  - Steven Levitt. 1997. "Using Electoral Cycles in Police Hiring to Estimate the Effect of Police on Crime." *The American Economic Review*. 87(3): 270-90.
    [BB]
  - Adam Berinsky. 1999. "The Two Faces of Public Opinion." *American Journal of Political Science*. 43(4):1209-1230. [BB]
- Assignment 5 due in class on Tuesday Dec. 4<sup>th</sup>

# Week 13 (12/11 & 12/13)

- Topics to be determinedPaper presentations in precept
- Final paper due in precept on Dec. 13<sup>th</sup>