

**Methods of Political Inquiry**  
Political Science 401; Fall 2012  
Tuesdays, Thursdays, 9:50-10:45

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Office Hours:  
Tuesdays 1:30PM-3:30PM  
and by appointment

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### **Overview**

This is an introductory course about how political scientists use the scientific method to answer questions about political phenomena. Further, it is a class that teaches you how to evaluate evidence from any (purportedly) scientific study. In this class, you will learn how political scientists create questions that can be tested, how they attempt to answer these questions and whether the evidence they provide actually answers the questions.

In the first part of class, we will cover how political scientists (and others) find questions to answer, create arguments to answer these questions, design research programs to test their arguments and what are the common pitfalls. In the second part of the class, we will examine quantitative methods more rigorously. Here, you will be expected to learn basic statistical methods both theoretically and apply these methods to real world data using the open-source (aka free) statistical software, R. The goal of this section is to make statistical research less intimidating. In the third section of class, we will examine qualitative methods. The goal of this section is to learn the difference between social scientific research and the use of anecdotes that politicians and journalists often use.

### **Requirements**

- Class participation in both lecture and section (10%)
  - Students are expected to attend both lecture and section, having done the reading for that class. I will post my lecture notes before class so that you may use them as a guide to take your own notes. They will not replace coming to class. If attendance falls or it appears that students have not done the reading, there may be quizzes in lecture and/or section.
- Problem sets (25%)
  - There will be 9 problem sets through out the course. Due dates are listed below. Problem sets should be turned in at the beginning of class to the TA, Ning Leng. Late problem sets will not be accepted and will be given a zero. I will drop your lowest problem set score in calculating your final grade, so you will not be penalized if illness, travel, emergency, stress, or laziness should cause you to skip one assignment.
  - Students are encouraged to work together on the problem sets but each student must write up their own work. Further, if you work with others, please note who you worked with on your problem set.

- Midterm exam (25%)
  - There will be one midterm exam.
- Final exam (40%)
  - The final exam is scheduled for Tuesday, December 18<sup>th</sup> at 2:45-4:45PM.

### **Grading**

- The problem sets and exams are meant to be challenging. Grading will adjusted to reflect the challenging nature of the assignment; however, the class will not be curved if everyone does well.
- **Correcting Errors in Grading:** Requests for grading correction should clearly and succinctly state the unambiguous error you believe has occurred. Errors in grading due to illegible or garbled answers are not subject to correction. Students who have been graded incorrectly should petition for a correction in writing to the Professor. Requests should be extremely short and must focus on the specifics of the grading error. Requests should occur within a week of the work being returned. The entire graded work (problem set or examination) should be resubmitted; there is no guarantee that grades will rise as, statistically, positive and negative errors in grading are equally likely. If the request arises because you think different students have been graded differently, all the affected students should submit their work as a group (there is no guarantee that only upward adjustments will occur.) Note that this policy applies only to specific and unambiguous errors, not to such items as disputes over grading policies, protests about the form or content of an examination, or claims of learning not displayed in the work. Requests for a correction which do not state, with particularity and specificity, the error to be corrected will be rejected.

### **Students with disabilities**

Students with disabilities will be fully included in this course. Please inform me if you need any special accommodations in the curriculum, instruction, or assessments of this course to enable you to participate fully. Confidentiality of the shared information will be strictly maintained. Certain accommodations may require the assistance of the McBurney Disability Office on campus. The McBurney Disability Resource Center can be reached at [\(608\) 263-2741](tel:6082632741) or via email at [mcburney@odos.wisc.edu](mailto:mcburney@odos.wisc.edu).

### **Readings and Course Materials**

The readings from this class are from both books and articles. Books should be available for purchase at the various local bookstores and, of course, from online retailers like Amazon. A copy of the books will be held on reserve at the library as well if you do not wish to purchase the books. Further, some chapters are available as e-reserves and the articles are available through the course website. E-resources are marked with an asterisk (\*).

- Required: Kellstedt & Whitten. 2009. *The Fundamentals of Political Science Research*.
- Recommended: Salkind *Statistics for people who (think they) hate statistics*

Other Blogs of Interest (not required):

- The Monkey Cage: <http://themonkeycage.org/>
- Wonkbook: <http://www.washingtonpost.com/blogs/ezra-klein/>

- Planet Money: <http://www.npr.org/blogs/money/>

In addition to the readings, you will be expected to use a computer to complete problem sets using the statistical program, R. No prior knowledge is needed; the TA will work with you on how to use R in section. Bringing a laptop to section, if you have one, will be helpful. R can be downloaded at <http://cran.r-project.org/>.

### **Final policies, notes, etc.**

Using computers during lecture: You are welcomed to use a computer during lecture; however, please do not check email, Facebook, espn.com, the current ranking of the Wisconsin Football team, etc., during class. It is not only rude to me, but it is also very distracting to your fellow students. Repeat offenders will be asked to leave class.

Contacting the professor and TA: Email is the best way to reach either of us. We will both try to respond in a timely manner, but understand that we are both old and go to bed early, so will probably not answer email between 9PM and 9AM on weekdays and may not be available on the weekends.

Excused absences for exams: You are expected to take the Midterm and Final during the assigned time. You may be excused and given a make-up exam if

- There is a death in your immediate family.
- You have a health emergency
- You are away for an athletic competition (but work with the Athletic Department to take the exam at the same time as the other students).

In case your life falls apart: It happens occasionally. Please contact me before the end of the semester if you need to take an incomplete etc. and also please take advantage of campus resources.

Finally, the syllabus is a guide and may be amended; most likely some material may be cut or abridged.

### **Part 1: Introduction & Developing an Argument**

- Tuesday, September 4<sup>th</sup> : Introduction
  - Why should you take this class?
  - What do we think of as inquiry? What is meant by political science inquiry?
  - How does political science differ from journalism?
  - Is there such as thing as the “social sciences?”
    - Reading: K&W ch. 1
- Thursday, September 6<sup>th</sup>: What makes a good question? Part 1
  - What are we interested in? Strictly positivist questions? Normative questions?
  - What do we already know?
  - How do we define what we will study?
- Tuesday, September 11<sup>th</sup> : What makes a good question? Part 2
  - What kinds of questions are testable?

- Importance of testability and falsifiable
    - Reading: K&W ch. 2, p. 22-28,
- Thursday, September 13<sup>th</sup> : Developing an Argument
  - How do political scientist develop an argument?
  - Role of drawing on prior research
  - Soaking and poaking
- Tuesday, September 18<sup>th</sup>: What else might have happened?
  - What is the counterfactual?
    - Readings: \*Tetlock and Belkin: “Counterfactual Through Experiments in World Politics” & \*Khong: “Confronting Hitler and Its Consequences” In *Counterfactual though Experiments in World Politics*
- Thursday, September 20<sup>th</sup>: Basic Games -The Prisoners Dilemma
  - How do actors think strategically? How does this lead to non-intuitive outcomes?
  - Basic set up to a game
  - Nash Equilibrium
  - Repeated PD, Grim trigger, Tit-for-tat
    - Readings: K&W: ch. 2, p. 31-40
    - **PROBLEM SET 1 DUE**
- Tuesday, September 24<sup>th</sup>: Games Over Time: Backward Induction
  - How can we think about situations when actors do not move at the same time?
  - Backward induction and sub-game perfect equilibrium
    - Readings: \*Weingast “Off-The-Path Behavior: A Game-Theoretic Approach to Counterfactuals and Its Implications for Political and Historical Analysis.” In *Counterfactual though Experiments in World Politics*
- Thursday, September 27<sup>th</sup>: From Argument to Testing: Hypotheses and Comparative Statics
  - How do we turn an argument into something testable?
  - Comparative Statics
  - Observable Implications
    - **PROBLEM SET 2 DUE**

## Part 2: Research Design

- Tuesday, October 2<sup>nd</sup> : Measurements and Concepts
  - How do we move our theory to data?
  - What is the right type of data for our theory? Survey, large-N study, case study
  - How do we measure our concepts? What makes a good measure?
    - Reading: K&W: Ch. 5; \*“White Working Chaos”; \*Munck and Verkuilen “Conceptualizing Democracy”
    - Optional reading: Salkind Ch. 6
- Thursday, October 4<sup>th</sup>: Sample/ Unit of Observation
  - What is the correct unit of observation?
  - Universe of cases or sample?

- Reading: K&W: Ch. 7
- Tuesday, October 9<sup>th</sup> : If sample, how do we choose the sample?
  - What is the correct comparison group?
  - Selection bias
    - Reading: \*”Why Medicaid is a Humanitarian Catastrophe,” \*”Does Medicaid matter?”
    - **PROBLEM SET 3 DUE**
- Thursday, October 11<sup>th</sup>: Causation and Experiments
  - How correlation differs from causation
  - Experimental frame work
  - Types of experiments in political science – field experiments, lab experiments, survey experiments, natural experiments
    - Reading: K&W: Ch. 4, \*Dunning “Natural Experiments”
- Tuesday, October 16<sup>th</sup>: What can go wrong in observational research
  - Use the experimental set up as frame work for what can go wrong in observational studies: More on selection bias, omitted variable bias, endogeneity, desirability bias, external validity
    - Reading: K &W Ch. 3
- Thursday, October 18<sup>th</sup>: Wrap up/ Review
  - **PROBLEM SET 4 DUE**

### **MIDTERM: Tuesday OCTOBER 23<sup>th</sup>**

#### Part 3: Large N Methods

- Thursday, October 25<sup>th</sup>: Describing data
  - What does the data look like?
  - What’s the mean, mode, median, variance, how is it distributed
    - Reading: K&W Ch. 6
    - Optional reading: Salkind Ch. 2-4
- Tuesday, October 30<sup>th</sup>: Statistical hypothesis testing
  - What is the null and alternative?
  - Significance tests
    - Reading: K&W Ch. 8, 134-139
    - Optional reading: Salkind Ch. 7 & 9
- Thursday, November 1<sup>st</sup>: Cross-tabs and chi-squares
  - Reading: K&W Ch. 8, 139-145
  - Optional reading: Salkind Ch. 17
  - **PROBLEM SET 5 DUE**
- Tuesday, November 6<sup>th</sup>: t-tests and the Comparison of Means
  - One-tail, two-tailed t-test
    - Reading: K&W Ch. 8, 145-155
    - Optional reading: Salkind Ch. 11 & 12
- Thursday, November 8<sup>th</sup>: Linear regression with one variable, part 1
  - Basic set up
  - Coefficients
  - How to estimate a linear regression

- Reading; K&W: Ch. 9, p. 159-165
  - Optional reading: Salkind Ch. 16
- Tuesday, November 13<sup>th</sup>: Linear regression with one variable, part 2
  - Significance
  - R-squared
  - Assumptions
    - Reading; K&W: Ch. 9, p. 165-182
    - Optional reading: Salkind Ch. 16
- Thursday, November 15<sup>th</sup>: Linear regression with more than one variable, part 1
  - How do we estimate a regression with more than 1 variable?
    - Reading: K&W Ch. 10, p. 177-188
    - **PROBLEM SET 6 DUE**
- Tuesday, November 20<sup>th</sup>: Linear regression with more than one variable, part 2
  - How do we interpret a regression with more than 1 variable?
    - Reading: K&W Ch. 10, p. 188-200
- Thursday, November 22<sup>nd</sup>: NO CLASS – HAPPY THANKSGIVING!
- Tuesday, November 27<sup>th</sup>: Advanced regression & wrap up
  - Indicator variables
  - Interaction terms
  - Introduce that other types of regression that exist for other types of data (logit, probit, 2SLS, survival models, etc.)
  - Wrap up
    - Reading; K&W Ch. 11, 202-212
    - Optional reading: Salkind Ch. 18
    - **PROBLEM SET 7 DUE**

#### Part 5: Small N and Qualitative Methods

- Thursday, November 29<sup>th</sup>: Case studies
  - Why case studies?
  - How to select cases? Different theories for choosing cases
  - How problems in quantitative studies apply to case studies
    - Readings: \*Seawright and Gerring “Case Selection Techniques in Case Study Research : A Menu of Qualitative and Quantitative Options”
    - \*Thies “A Pragmatic Guide to Qualitative Historical Analysis in the Study of International Relations.”
    - Optional Reading: \*Levy “Case Studies: Types, Designs, and Logics of Inference,”
- Tuesday, December 4<sup>th</sup>: Process tracing within a single (or multiple) cases
  - How is process tracing related to causal inference
    - Readings: \*Bennett “Process Tracing and Causal Inference” In *Rethinking Social Inquiry*
    - **PROBLEM SET 8 DUE**
- Thursday, December 6<sup>th</sup>: Ethnographic methods
  - How do ethnographic methods inform our understanding of politics and culture?

- Readings: \*Geertz “Think Description,” \*Walsh “Putting Inequality in Its Place: Rural Consciousness and the Power of Perspective”
- Tuesday, December 11<sup>th</sup>: Discourse Analysis
  - Readings: \*Weeden “Conceptualizing Culture: Possibilities for Political Science”
- Thursday, December 13<sup>th</sup>: Wrap up & Review
  - Reading: \**Symposium: Perfecting Methodology, or Methodological Perfectionism?*, \*Brady, Collier and Seawright “Toward a Pluralistic Vision of Methodology”
  - **PROBLEM SET 9 DUE**

**FINAL EXAM: TUESDAY, DECEMBER 18<sup>th</sup> at 2:45-4:45PM**