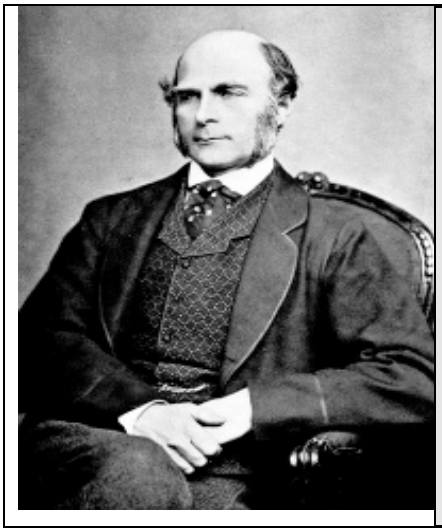

INTA 6003: Empirical Research Methods

FALL 2015
Wed 6:05pm – 8:55pm
LOCATION: Habersham G-17
==========

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I. Introduction

This course will provide an introduction to the application of scientific methods to the study of international & comparative politics and policy. Given the diversity of students who typically enter the MSIA program, this course will also serve as a common foundation for many of your other SNS courses. In it, you will learn the purposes of social science, and what distinguishes a scientific approach to social phenomena from other approaches. You will learn how research questions (and answers) are properly structured. You will be exposed to the most widely used social science methods, and learn the strengths, weaknesses, and appropriate applications of each. You will be trained on how to search the research literature, how to distinguish expert sources from non-expert ones (and to identify sources of bias), and how to write short policy briefs. Students are also given basic training on proper presentation techniques and the good/bad uses of presentation software. Finally, since social science research is often used as an input to the policy design process, the primary aim of this course is to make students into intelligent consumers and critics of a wide range of social science research. Students who wish to become producers of research will be given guidance on more advanced training. Students will be graded on homeworks, quizzes, discussion, presentations, and policy briefs.

II. Brief Course Calendar

	Wednesday	*MAJOR ASSIGNMENT DUE THIS WEEK**
Week #1	**Aug 19** What is Politics?	Research Questions
Week #2	26 What is Science?	Revised Research Question + Justification
Week #3	**Sep 2** What is Methodology?	Policy Brief #2
Week #4	9 Probability and Intro Stats	FQ I [Intro Concepts] + abstracts
Week #5	16 Applied Regressions I	FQ II [Probability] + Policy Brief #3
Week #6	23 Applied Regressions II	FQ III [Regressions]
Week #7	30 Data Visualization	
Week #8	**Oct 7** Intro to Logit/Probit	FQ IV [Regressions II] + Presentations
Week #9	14 Qualitative Methods	FQ V [Logit] + Presentations
Week #10	21 Social Network Analysis	
Week #11	28 Threats to Validity	Measurement Exercise + Presentations
Week #12	**Nov 4** STATA and Data	Validity Threats Homework + Presentations
Week #13	11 **TBA**	
Week #14	18 Intro Game Theory	
Week #15	25 **NO CLASS**	
Week #16	**Dec 2** Wrap-up	Policy Brief #4 & Presentations + FQ VI

*Additional assignments may not appear on this list, but are described in the course schedule below.

III. Required Course Materials

A) Kuhn, Thomas *Structure of Scientific Revolutions* (University Of Chicago Press; 3rd edition)

B) Keohane, King, and Verba 1994. *Designing Social Inquiry* (Princeton Univ. Press). Henceforth referred to as "KKV" in the syllabus below.

C) Michael S Lewis-Beck. 1980. *Applied Regression: An Introduction* (Sage Publications) booklet #22

D) Achen, Christopher H. 1982. *Interpreting and Using Regression* (Sage Publications) booklet #29

Recommended, but *not* required purchases:

-Van Evera, Stephen. 1997. *Guide to Methods for Students of Political Science* (Cornell Univ. Press)
-Campbell, Donald, T. and Julian C. Stanley. 1963. *Experimental and Quasi-Experimental Designs for Research* (Houghton Mifflin)
- Berry, William & Stanley Feldman. 1985. *Multiple Regression in Practice* (Sage Publications) booklet #50
-Schroeder, Sjoquist, & Stephan *Understanding Regression Analysis: An Introductory Guide* (Sage Publications) booklet #57
-Berry, William. 1993. *Understanding Regression Assumptions* (Sage Publications) booklet #92
-Fox, John. 1991. *Regression Diagnostics: An Introduction* (Sage Publications) booklet #79
-Detlef F. Sprinz & Yael Wolinsky-Nahmias. 2004. *Models, Numbers, and Cases: Methods for Studying International Relations* (University of Michigan Press)
-Pampel, Fred C. 2000. *Logistic Regression: A Primer* (Sage Publications) booklet #132

IV. Course Objectives

A major goal of this class is to train/test students on their ability to read, critique, and synthesize the expert research literature, and to communicate this to non-experts.

By the end of this course students should be able to:

A) Understand what makes a claim scientific, as well as the philosophical foundations of science and its critiques.
B) Understand how, why, and in what ways science and scientific approaches are (and are not) useful
C) Recognize and construct a proper social science research question
D) Understand the major methods used to answer social science research questions
E) Read and interpret basic statistical tables, basic regression tables, and case study research
F) Understand the issues and problems of scientific measurement
G) Understand and apply various standards of scientific validity
H) Understand the political aspects of science and scientific research

V. In-Class Conduct

A) All cellphones, blackberries, and other telecommunications devices are to be switched off during class.
B) Students are required to check their email at least once per day.
C) Students are responsible for all materials, discussions, comments, etc. covered in class (i.e. don't miss class, it may affect your grade).
D) Absences for medical or personal emergencies will be excused upon verification by the Office of the Dean of Students. Absences for school athletics will be excused only if they are in accordance with the schedules approved and circulated by the Student Academic & Financial Affairs Committee for Travel or the Associate Athletic Director (Academic Services). Absences due to military service will be handled on a case-by-case basis and subject to verification.
E) If you do miss class for a non-emergency or non-approved event, do not apologize or explain why. I completely understand that "life happens" and that you have priorities other than this class. However,

unless it's an emergency (see above), it will not affect grading policy. That is, if you miss class for some awesome extra-curricular adventure or opportunity, I'm not offended...but I cannot grant you a special tutoring session, extension, or make-up either. You will be responsible for any material, assignments, or announcements covered in class that you missed.

F) Students who arrive late to, or leave early from, class are required to do so with minimum disturbance.

G) Students who eat/drink during class are required to do so with minimum disturbance, and to thoroughly clean up afterwards.

H) **Websites and online material are generally not accepted as legitimate sources for use or citation in your papers and presentations. Exceptions to this policy will be discussed in class.**

I) Students will treat each other and the professor with respect. Constructive questioning and criticism are welcome & encouraged. Personal attacks & insults are not. The rule of thumb here is that critical comments and questions should be maturely **phrased in a manner that encourages constructive and open debate**; they should not be phrased as insults, threats, or in a manner that shuts down conversation or debate.

J) Students are expected to read and abide by the Georgia Tech Student Code of Conduct and the Academic Honor Code. All violations will be reported. The complete text of these two Codes may be found at: www.deanofstudents.gatech.edu/integrity/policies/index.html

VI. Email Policy

A) General communications from the professor to the class will be posted on the class website. Students are required to check the class blog daily, and are responsible for all communications on it regarding assignments and grades.

B) Personal or confidential communications from the professor to you will done by email. **You are therefore required to have a functioning email account**, check it daily, to alert the professor if you are not receiving emails on it, and to provide a functioning email address if this one fails to operate properly.

C) I will check email at irregular intervals between 9am and 6pm every weekday; I reserve the right to check and respond to emails more often than this.

D) Your emails will be responded to within 24 hours of their receipt, if not faster, conditional on the following:

- Include the course number in the "Subject" line of your emails.
- Write a meaningful subject line (e.g. "INTA 6003—is immigration a good topic for final paper?")
- If you have a general question, check the syllabus, website, T-Square *before* emailing...the answers might be in there!
- Be sure to do the readings and listen to the lectures thoroughly *before* emailing questions about the material...the answers might be in there too!

It is the student's responsibility to adhere to these guidelines. Any e-mail not adhering to these guidelines may be mistaken for spam (or a joke) and discarded.

E) Unless specifically instructed, assignments are always to be submitted in hard copy form only; electronic submissions as backup & confirmation. (i.e. I don't have time to download, print, & staple 50 papers).

F) Absences: Only send email about absences or missed deadlines if they are the result of medical issues or serious personal emergencies (e.g. fires, natural disasters, death in the family). Otherwise, do not send email about absences. Also, do not send email to apologize for missing class or assignment deadlines.

VII. Plagiarism Policy[1]

The full plagiarism policy, along with citations guidelines, are described on the class website. In brief, plagiarism is defined, for the purposes of this class, as: copying, borrowing, or appropriating another person's work **and** presenting it as your own in a paper or oral presentation, deliberately or by accident. Acts of plagiarism will be reported in accordance with the Honor Code. In order to avoid being charged with plagiarism, if you use the words, ideas, phrasing, charts, graphs, or data of another person or from published material, then

[1] Brennecke, Patricia. 2005. *Academic Integrity at the Massachusetts Institute of Technology: A Handbook for Students* (MIT: Cambridge, MA).

you must either: 1) use quotation marks around the words **and** cite the source, or 2) paraphrase or summarize acceptably using your own words **and** cite the source. The plagiarism policy is not restricted to books, but also applies to video & audio content, websites, blogs, wiki's, and podcasts. **Plagiarism includes putting your name on a group project to which you have minimally contributed.**

VIII. Bias

The major sides of the various debates over the scientific method in general, and social science methods in particular, will be presented. However, the purpose of this class is to teach you how to apply scientific method to understand social phenomena, and how to interpret research that does so. Therefore this class is heavily biased towards the belief that science is not "just another discourse" and when used properly can produce evidence of relatively objective truth claims about certain types of phenomena. This does not mean that science can explain everything, but that it can explain some things with far greater certainty and objectivity than can other approaches.

As for myself, I tend towards positive rather than normative aspects of social science, and I have a very strong bias towards scientific methods in general (e.g. controlled experiments, natural experiments, statistical analysis, qualitative research) and the use of most types of empirical evidence to substantiate theoretical claims. I firmly believe in the practice of triangulation, both in data and method. I also believe that a scientific approach to the world is a key element of human freedom and progress. Thus, while I respect philosophical and religious positions which are anti-science, anti-positivist, and anti-methods; and take seriously those who question the legitimacy of taking a scientific approach to social phenomena; in this particular class I will be strongly biased in favor of the usefulness of the scientific method for positive research in politics and policy.

IX. Grades

Your grade will be determined by: how well you ***communicate*** to me that you ***understand*** the ***fundamental*** definitions, concepts, and applications of empirical research methods ***as presented in the lectures and readings***.

It bears repeating that your personal (dis)agreement with the definitions, concepts, applications, and methods presented in this class does not affect your grade. You do however need to show that you understand these fundamentals as they are currently accepted by the community of top researchers in positivist social science. You need not agree with them, but you do need to show that you understand them. Your understanding of the course material will be communicated to me via the following:

10% write-ups
15% discussion, Q&A
20% homeworks
20% quizzes
10% individual presentation
15% individual policy briefs
5% team presentation
5% team policy brief

Students should note that, for individual assignments (papers, quizzes, etc), grades in this course are not rigidly related to numerical scores, distribution functions, predetermined percentages, or your knowledge of buzzwords. As can be seen from the following grade descriptions, individual assignment grading in this course is related more directly to a student's demonstrated mastery of the material. This also means that the relative performance of one's peers is less important, though not irrelevant, to one's grade. Finally, in determining an assignment's grade, consideration is given for elegance of presentation, creativity, imagination, and originality *only* where these have been appropriately be called for, and where mastery of the fundamentals has already been demonstrated. A satisfactorily completed individual assignment will receive one of the following grades:

A: Exceptionally good performance demonstrating a superior understanding of the subject matter, a foundation of extensive knowledge, and a skillful use of concepts and/or materials. Ready for doctoral research

B: Good performance demonstrating capacity to use the appropriate concepts, a good understanding of the subject matter, and an ability to handle the problems and materials encountered in the subject.

C: Adequate performance demonstrating an adequate understanding of the subject matter, an ability to handle relatively simple problems, and adequate preparation for moving on to more advanced work in the field.

Other grades awarded include:

D: Minimally acceptable performance demonstrating at least partial familiarity with the subject matter and some capacity to deal with relatively simple problems, but also demonstrating deficiencies serious enough to make it inadvisable to proceed further in the field without additional work.

F: Failed. Has not demonstrated familiarity with the subject matter, nor the capacity to deal with simple problems in a manner recognizable to the consensus of mainstream academic practitioners within the field.

Note that this course's internal grading system includes plus (+) and minus (-) modifiers for use with the letter grades A, B, C, and D. However, they are not officially part of students' grades, they do not appear on Georgia Tech transcripts, and they do not affect internally or externally reported grade-point averages.

X. Grade Change Policy

Legitimate requests for grade changes are welcome and encouraged. However, you should resist the temptation to file a frivolous request just hoping to "get lucky". Simple computational or clerical errors should be brought to the professor's attention immediately. Otherwise:

A) Requests for grade changes must:
   i) be submitted in writing, both electronically and in hard-copy, and
   ii) be submitted not sooner than 7 days and not later than 28 days of receiving the graded assignment, and
   iii) be no longer than 600 words.

B) Requests for grade changes should:
   i) identify what was required in the assignment, and
   ii) describe *precisely* how these requirements were fulfilled at a level above the received grade, and
   iii) address any relevant comments written by the professor on the graded assignment (if applicable) and explain why they do not apply.

Approach a grade change request as if arguing a legal case: you should have strong and convincing arguments and evidence to support your request. Be aware that appeals to the practices of other professors generally do not constitute good argument or evidence. Note also that grade changes requests can result in re-grades both up or down (or left unchanged). That is, if the greater scrutiny demanded by a grade change request reveals your assignment to deserve a lower grade than previously awarded, then the lower grade may be assigned (i.e. be sure that you are not "looking a gift horse in the mouth" *before* you file a grade change request).

XI. Reading Write-Up's

Unless otherwise indicated below, students should submit a 50-350 word synopsis of each reading. Students can use whatever format (bullet points, outlines, essay, short notes) they feel clearly summarizes the major points of each reading. Each write-up should separately contain a substantive question about the reading.

INTA-6003 Fall 2015 Course Schedule

August 19: Introduction & What is Politics? (Week #1)
In this first session we will discuss the overall objectives of the course, preview the syllabus, explain the assignments and grading, and cover general course policies. Also, since the course is about analyzing and doing research in a sub-field of "political science", it would help to agree upon what those terms mean. So we will spend some time considering the question of what exactly is "politics", and what it means to do empirical research on political behavior. An overview of the scope of political science will be also provided. We will also discuss what a proper research question is. Finally, we will begin training on how to write policy briefs.

● Research Questions due today (Aug 19) via email by 12pm

Assignments for next time:
1) ● Email 3 *revised* research questions by **12pm Tues Aug 25** (1 sentence each, body of an email; 1 of the questions should be followed by a one paragraph justification)
2) Listen to Philosophy of Science 1-4 <.mp3's>
3) Readings:
-Orr, H. Allen. 2005. "Devolution: Why Intelligent Design Isn't" *The New Yorker* (May 30)
[note: in this reading try to stay focused on figuring out what ID posits: its theory and its critique of evolution; try to ignore the politics or controversy surrounding ID for now, see the optional readings below for that]
-The Art & Craft of Policy Briefs <handout>

Optional
-Downey, Roger. 2006. "Discovery's Creation" *Seattle Weekly* (Feb 1)
-Humburg, Burt and Ed Brayton. 2005. "Report on the Case of Kitzmiller et al v. Dover Area School District". *ESkeptic* (Skeptic Society)
-Dupre, John. 2012. "Evolutionary Theory's Welcome Crisis" *Project Syndicate* (Sep 4)

August 26: What is Science? (Week #2)
Now that we know something abut what "politics" means, we begin the discussion about what exactly it means to be "scientific", which is *the* major concern of the course. We will tackle the various debates surrounding this question, and how the views and practices of science have changed over time (even amongst scientists themselves). Although this discussion may seem philosophical, it will have a major impact on this course since you will be graded on how "scientific" your work is, and thus how well you understand what is science. We continue our discussion of proper research questions and how/why to "justify" them. In the second half of class, we examine literature reviews and their purposes. Some literature search strategies will be reviewed, along with ways of assessing source quality and why this is important.

Assignments for next time:
1) ● Use Web of Science, EconLit, and/or other expert databases together with the rankings readings to identify research articles for final policy brief. Submit 10-20 cites+abstracts (**due by noon Sept 8**) (as .docx attachment to an email)
2) ● Policy Brief #2 (**due next class Sept 2, 6pm**; 1 e-copy, 3 hard copies)
3) Readings:
-Kuhn, Thomas *Structure of Scientific Revolutions* (University Of Chicago Press; 3rd edition)
-How and Why to Justify Research <handout>
-Various short readings on what makes a good literature review <handouts>
-McLean, Iain et. al. 2009. Comparative Journal Ratings: Survey Report. *Political Studies Review* 7(1):18-38
-Garand, James C. and Michael W. Giles. 2011. Ranking Scholarly Publishers in Political Science: An Alternative Approach. *PS-Political Science & Politics* 44(2): 375-383.
-Maliniak, Daniel, Susan Peterson and Michael J. Tierney. 2012. *TRIP Around the World: Teaching,*

Research, and Policy Views of International Faculty in 20 Countries (College of William & Mary)
- Kalaitzidakis, Pantelis, Theofanis P. Mamuneas and Thanasis Stengos. 2011. An Updated Ranking of Academic Journals in Economics. *Canadian Journal of Economics* 44(4): 1525-1538.

[***ONLY write-up required is on the Kuhn book***]

September 2: What is Methodology? (Week #3)

In this session, we start our examination of the key building block of all science: the research article. As consumers and analysts of research, often the most important article sections for you to understand will be those on methods, analysis, and results. Therefore we will begin to get into the nuts-and-bolts basics of scientific methods, and how social scientists apply them to answer questions about politics and policy. You will be introduced to the concepts and roles of theories, laws, hypotheses, and different types of variables. We will discuss the importance of external and internal validity, the role of control and randomization in establishing validity, and how different methods achieve (or do not) achieve these.

- POLICY BREIF #2 due at start of today's class

Assignments for next time:

1) Study for FUNDAMENTALS QUIZ I [Politics, Science, Basics of Scientific Method]
2) Read & critique policy briefs (**due Sept 9 in class**)
3) Use Web of Science, EconLit, and/or other expert databases together with the rankings readings to identify research articles for final policy brief. Submit 10-20 cites+abstracts (**due by noon Sept 8**) (as .docx attachment to an email)
4) Readings:
-Manheim, Jarol B., Richard C. Rich, and Lars Willnat. 2002. *Empirical Political Analysis: Research Methods in Political Science*. Chapters 1-2. (skim for content) <.pdf>
-W. Phillips Shively. 1998. *The Craft of Political Research* (Prentice Hall 4th Edition). Chaps 1-2(partial) (skim for content) <.pdf>
-Van Evera, Stephen. 1997. *Guide to Methods for Students of Political Science* (Cornell Univ. Press) pp. 1-27 (read a bit more carefully) <.pdf>
-KKV Chap 1 "The Science in Social Science" (mull deeply)

September 9: Probability and Basic Statistics (Week #4)

Today we discuss last week's policy briefs and strategies/tactics for writing more effective ones. We also discuss the source/abstract list you submitted. We then begin an examination of quantitative methods by reviewing basic descriptive statistics, probability, and statistical inference.

- FUNDAMENTALS QUIZ I [Politics, Science, Basics of Scientific Method]

Assignments for next time:

1) Study for FUNDAMENTALS QUIZ II [Probability, Statistics, Inference]
2) Policy Brief #3 (use Web of Science etc. to identify expert research article; turn it into policy brief) (**due Sept 16 in class**).
3) Readings:
-KKV Chap 2 "Descriptive Inference" (mull deeply)
- Salkind, Neil J. 2005. *Statistics for People Who (Think They) Hate Statistics* 2nd Edition (Sage Publications)
*Chap 7—"Are Your Curves Normal?: Probability and Why It Counts"
*Chap 8—"Significantly Significant"
-Various short readings on how/why people don't get probability TBAxx
-Desch, Michael C. and Paul C. Avey. 2014. What Do Policymakers Want From Us? *International Studies Quarterly* 58: 227–246

Optional Reading:
-Mohr, Lawrence. 1990. *Understanding Significance Testing* #73 (Sage Publications)
-Henkel, Ramon E. *Tests of Significance* #4 (Sage Publications)

September 16: Introduction to Regression Analysis I (Week #5)
We start by reviewing FQ I and revisiting basic methods concepts. Thereafter we continue our discussion of quantitative methods with an introduction to regressions. Scatterplots of data can suggest general relationships between different variables. But how can we know if these relationships are real or merely the result of random chance? How can we quantify this possibility, and the relationships themselves? In other words, how do you draw a line through a cloud of datapoints? And once you do, how do you know it's the best fitting line possible? This week we answer these questions with a discussion of bivariate and multivariate regressions with the goal of reading and interpreting regression results.

- FUNDAMENTALS QUIZ II [Probability, Statistics, Inference]
- POLICY BREIF #3 **due at start of today's class**

Assignments for next time:
1) Study for FUNDAMENTALS QUIZ III [Regressions]
2) Readings **(No write-ups required!)**:
-Taylor, Mark Zachary. 2010. "Regression Analysis" in *21st Century Political Science: A Reference Handbook* edited by John Ishiyama and Marijke Breuning, pp. 478-489 (Sage Publications)
-Lewis-Beck, Michael S. 1980. *Applied Regression: An Introduction* #22 (Sage Publications)

Optional Readings **but Highly Recommended!**:
-Fox, John. 1991. *Regression Diagnostics: An Introduction* (Sage Publications) booklet #79

September 23: Introduction to Regression Analysis II (Week #6)
Today we continue our discussion of quantitative methods with a look at collinearity, dummy variables and interaction terms. We then test our knowledge of regression theory by applying it to real research. We will examine several research articles which employ regression analysis as their primary method. We will practice reading and interpreting the regression results. We will also discuss the (im)proper uses of Powerpoint and how to employ it effectively in presentations.

- FUNDAMENTALS QUIZ III [Regressions]

Assignments for next time:
1) Readings:
-Christopher H. Achen *Interpreting and Using Regression* #29 (Sage Publications)
2) Prepare a 10 min professional oral briefing on a research article of your choice. Use Web of Science, EconLit, etc to locate the article. Before starting, email the article to Prof. Taylor for approval **due on or before Oct 2**; for the presentations, students will either volunteer or be selected at random to present **during class on Oct 7, 14, 28, Nov 4, and Dec 2.**

Optional Readings **but Highly Recommended!**:
-William Berry & Stanley Feldman *Multiple Regression in Practice* #50 (Sage Publications)
-William Berry *Understanding Regression Assumptions* #92 (Sage Publications)
-Schroeder, Sjoquist, and Stephan *Understanding Regression Analysis: An Introductory Guide* #57 (Sage Publications)

September 30: Data Visualization (Week #7)

Today we welcome as our guest lecturer a PhD-level researcher on data visualization, Chad Stopler <cstolper3@gatech.edu>. Mr. Stolper comes to us from the College of Computing in the School of Interactive Computing at Georgia Tech. He conducts research on visualizing the reliability and confidence of data and data analysis results. This research tends to fall under the umbrellas of Information Visualization and Visual Analytics. He works with data which has a factor of uncertainty associated with it and his research attempts to both factor this uncertainty into visual representations of the data as well as visualize this uncertainty directly.

Assignments for next time:
1) Add at least one professional data visualization to your 10 min oral briefing on a research article of your choice. Students will either volunteer or be selected at random to present **during class on Oct 7, 14, 28, Nov 4, and Dec 2.**
2) Study for Fundamentals Quiz IV (More Regressions)
3) Readings:
-Schwabish, Jonathan A. 2014. An Economist's Guide to Visualizing Data. *Journal of Economic Perspectives* 28(1): 209–234

October 7: Introduction to Logit/Probit Analysis (Week #8)
Ordinary least squares (OLS) regressions work fine when analyzing phenomenon that are continuous, but fail with dependent variables that are dichotomous (i.e. where a dummy variable is the DV). Therefore, today we continue our discussion of quantitative methods with a look at logistic regression analysis. Put simply, logit analysis works by fitting an S-curve to the data rather than a straight line, but the results are interpreted very differently than those produced by OLS.

- FUNDAMENTALS QUIZ IV [More Regressions]

Assignments for next time:
1) Study for Fundamentals Quiz V (Logit Regressions)
2) Readings (read at least two of the following, write-up one):
-Whitehead, John. 20xx. An Introduction to Logistic Regression: Nuts and Bolts <.pdf>
-Whitehead, John. 20xx. An Introduction to Logistic Regression <.ppt>
-Peng, Lee, & Ingersoll. 2002. An Introduction to Logistic Regression Analysis and Reporting. *Journal of Educational Research* 96(1):3-14
-Peng & So. 2002. Logistic Regression Analysis and Reporting: A Primer. *Understanding Statistics* 1(1):31-70

Optional Readings **but Highly Recommended!**:
-Pampel, Fred C. 2000. *Logistic Regression: A Primer* (Sage Publications) booklet #132

October 14: Qualitative Methods (Week #9)
Statistical analysis is a powerful research tool, but it has its limits. Today we discuss those limits, and the relative strengths of qualitative methods. Although not as precise as statistics, qualitative methods can provide insights into causal relationships that quantitative methods cannot. We will see how plausible rival explanations can take the form of problems with research design (a.k.a. threats to validity).

- FUNDAMENTALS QUIZ V [Logit Regressions]

Assignments for next time:
1) Readings:
-Braumoeller & Sartori 2005. "The Promise and Peril of Statistics in International Relations" in Detlef F. Sprinz & Yael Wolinsky-Nahmias. *Models, Numbers, and Cases: Methods for Studying International Relations* (University of Michigan Press) pp. 129-151. <.pdf>

-Odell, John S. 2005. "Case Study Methods in International Political Economy" in Detlef F. Sprinz & Yael Wolinsky-Nahmias. *Models, Numbers, and Cases: Methods for Studying International Relations* (University of Michigan Press) pp. 56-80. <.pdf>
-Mahoney, James and Gary Goertz. 2006. "A Tale of Two Cultures: Contrasting Quantitative and Qualitative Research" *Political Analysis* 14:227-249

October 21: Social Network Analysis (Week #10)

Prof. Jenna Jordan visits today to discuss the explosion of research on social networks and their roles in international political and economic activity. Social networks have been shown to play pivot roles in explaining certain aspects of terrorism, international finance, trade, multinational corporations, and even scientific research, One main finding is that social networks provide vital information which neither markets nor governments easily capture. In doing so, social networks drastically reduce the costs and risks of political or economic activity. Today's lecture will introduce basic concepts of social networks and the methods used to analyze them.

Assignments for next time

1) HOMEWORK: Measurement exercise (email .doc to Prof. Taylor **due before noon Tues Oct 27**)
2) Readings:
   -Hafner-Burton, Emilie M. and Alexander H Montgomery, 2009, "Network Analysis for International Relations," *International Organization* 63 (Summer 2009), 559-92.
   -Krebs, Valdis E., 2002, "Mapping Networks of Terrorist Cells," *Connections* 24:3, 43–52.
   -Murdie, Amanda. 2013. "The Ties That Bind: A Network Analysis of Human Rights International Nongovernmental Organizations." *British Journal of Political Science*: 1–27.
   -Perliger, Arie, and Ami Pedahzur. 2011. "Social Network Analysis in the Study of Terrorism and Political Violence." *PS: Political Science & Politics* 44(1): 45–50

Optional

-Casper, Steven. 2007. How do technology clusters emerge and become sustainable? *Research Policy* 36: 438–455.
-Krebs, Valdis E. 2002. Uncloaking Terrorist Networks. *First Monday* 7(4)
-Horn, Heather. 2013. How Social Networks Explain Violence in Chicago. *The Atlantic* (Oct 1) http://www.theatlantic.com/national/archive/2013/10/how-social-networks-explain-violence-in-chicago/280159/

October 28 TBA (Week #11)

Today we will discuss the variety of different methodological approaches covered thus far. We will also catch up on prior business (e.g. oral presentation, homework discussions, regressions practice).

Assignments for next time

1) READ: Campbell, Donald, T. and Julian C. Stanley. 1963. *Experimental and Quasi-Experimental Designs for Research* (Houghton Mifflin) pp. 5-57. <.pdf> Read/skim for its major points and apply them to the Homework. No write-up required!
2) HOMEWORK: validity threats (**due 6pm Nov 4**)

November 4: STATA and Data (Week #12)

This class will serve as a brief "getting started" introduction to STATA. It should allow you to get an early jump on this seemingly inscrutable but easy and powerful statistical software package.

Assignments for next time

1) -KKV Chap 3 (Causality & Causal Inference)

-Van Evera, Stephen. 1997. *Guide to Methods for Students of Political Science* (Cornell Univ. Press) pp. 27-43 (general testing); 49-87 (case studies) <.pdf>

2) HOMEWORK: Policy Brief #4: Team Policy brief (and presentation) **due in-class Dec 2**

Optional:
-Start watching Stata tutorial movies: http://statistics.ats.ucla.edu/stat/stata/notes/default.htm
-Check out the STATA learning modules at: http://www.ats.ucla.edu/stat/stata/
-Viktor Mayer-Schonberger and Ken Cukier. 2013. *Big Data: A Revolution that Will Transform How We Live, Work, and Think*. John Murray Publishers.

November 11 TBA (Week #13)

November 18: Game Theory (Week #14)

Today Dr. Jeff Borowitz <jborowitz@gmail.com> introduces the highly structured and mathematical approach to social science research known as formal theory. Although arguably more of a deductive approach to hypothesis generation as opposed to a research method, we will examine the basic assumptions and applications of formal models. We will also have a look at criticisms of this approach.

Assignments for next time
1) Readings:
-Green, Donald P. and Ian Shapiro. 1994. *Pathologies of Rational Choice Theory: A Critique of Applications in Political Science.* (Yale Univ. Press). pp ix-46
-Walt, Stephen M. 1999. "Rigor or Rigor Mortis?: Rational Choice and Security Studies" *International Security* 23(4): 5-48
-Powell, Robert. 1999. "The Modeling Enterprise and Security Studies" *International Security* 24(2):97-106
-Various game theory papers (skim) TBAxx

November 25: [NO CLASS] (Week #15)

Assignments for next time
1) ●Study for FUNDAMENTALS QUIZ VI [Empirical Research Methods]
2) Work on final policy brief & presentation, **due in class Dec 2** (electronic copy AND hard copy)
3) Readings:
-Almond, Gabriel and Stephen Genco. 1977. "Clocks, Clouds, and the Study of Politics" *World Politics* 29(4): 489-522 <.pdf>
-William J. Sutherland, David Spiegelhalter and Mark A. Burgman. 2013. Twenty Tips for Interpreting Scientific Claims. *Nature* 503:335-337

December 2: Final Class (Week #16)

Today we conclude the course with a discussion of your research projects. We will also debate whether science can be used to study social phenomena (or anything at all), and ask what the basis is for our confidence and doubts.

- FUNDAMENTALS QUIZ VI [Empirical Research Methods]
- Policy Brief #4 and group presentation due in class (electronic copy AND hard copy)

XI. Other Highly Recommended Readings

General

-"The Political Methodologist" Biannual Newsletter of the Society for Political Methodology
Available free online: http://polmeth.wustl.edu/thepolmeth.php

-Hedstrom, Peter and Richard Swedberg. 1998. *Social Mechanisms: An Analytical Approach to Social Theory* (Cambridge University Press).

-Pierson, Paul. 2000. "Increasing Returns, Path Dependence, and the Study of Politics". *American Political Science Review*. 94(2): 251-267.

-…and almost anything by Chris Achen, Nathaniel Beck, David Collier, John W.Creswell, Jonathan Katz, Michael Lewis-Beck, Charles Ragin, Christopher Zorn.

Quantitative Methods

-Beck, Nathaniel. 2001. "Time-Series Cross-Section Data: What Have We Learned in the Past Few Years?" *Annual Review of Political Science* 4:271-293.

-Berry, William Dale. 2000. *Understanding Multivariate Research: A Primer for Beginning Social Scientists*. Westview Press.

-Gonick, Larry and Woollcott Smith. 1994. *The Cartoon Guide to Statistics*. (Harper Perennial)

-Huff, Darrell, and Irving Geis. 1993 *How to Lie With Statistics* (W. W. Norton & Company)

-King, G. "How Not To Lie With Statistics: Avoiding Common Mistakes in Quantitative Political Science" *American Journal of Political Science* 30 (Aug 1986) p. 666-687?

-Levin, Irwin P. *Relating Statistics and Experimental Design: An Introduction* (Sage Publications) booklet #125

-Pampel, Fred C. 2000. *Logistic Regression: A Primer* (Sage Publications) booklet #132

-Rudas, Tamas. 2004. *Probability Theory: A Primer* (Sage Publications) booklet #142

-Smithson, Micahel. 2003. *Confidence Intervals* (Sage Publications) booklet #140

-Wheelan, Charles. 2013. *Naked Statistics: Stripping the Dread from the Data* (WW Norton)

Qualitative Methods

-Collier, David and James Mahoney. 1996. "Insights and Pitfalls: Selection Bias in Qualitative Research" *World Politics* 49: 56-91.

-Geddes, Barbara. 1990. "How the Cases You Choose Affect the Answers You Get: Selection Bias in Comparative Politics" *Political Analysis* 2: 131-150

-Gerring, John. 2004. "What is a Case Study and What is it Good For?" *American Political Science Review* 98(2): 341-354

-Lijphart, Arend. 1975. "The Comparable Cases Strategy in Comparative Research" *Comparative Political Studies* 8:158-177.

-Lustick, Ian. 1997. "History, Historiography, and Political Science: Multiple Historical Records and the Problem of Selection Bias" *American Political Science Review*

-Nisbett, Richard E. and Timothy Decamp Wilson. 1977. "Telling More Than We Can Know: Verbal Reports on Mental Processes" *Psychological Review* 84(3): 231-259.

-Ragin, Charles. 1997. "Turning the Tables: How Case-Oriented Research Challenges Variable-Oriented Research" *Comparative Social Research* 16: 27-42.

-Ragin, Charles and Howard S. Becker (eds.). 1992. *What is a Case? Exploring the Foundations of Social Inquiry.* (Cambridge Univ. Press).

-Yin, Robert. 2003. *Case Study Research: Design and Methods* (Sage Publications)

Formal Methods

-Axelrod, Robert. 1985. *The Evolution of Cooperation* (Basic Books)

-Davis, Morton D. 1997. *Game Theory: A Non-technical Introduction* (Dover Publications)

-Gibbons, Robert. 1992. *Game Theory for Applied Economists* (Princeton Univ. Press)

-Gintis, Herbert, 2002. *Game Theory Evolving* (Princeton Univ. Press)

-Poundstone, William. 1993. *Prisoner's Dilemma* (Anchor Press)

Social Network Analysis

-Jackson, Matthew O. 2010. *Social and Economic Networks* (Princeton University Press)

-Knoke, David. 2012. *Economic Networks* (Polity Press)

-Knoke, David and Song Yang. 2007. *Social Network Analysis*(Sage Publications)

-Schrank, Andrew and Josh Whitford. Forthcoming. *When Networks Fail: Uncovering the Hidden Weaknesses in the Global Economy* (Princeton University Press)

Professional Writing

-Clark, Roy Peter. 2006. *Writing Tools: 50 Essential Strategies for Effective Writers.* (Little, Brown, & Co.)
-McCloskey, Deirdre N. 2000. *Economical Writing*. (Waveland Press).
-Truss, Lynne. 2003. *Eats, Shoots & Leaves: The Zero Tolerance Approach to Punctuation*. (Profile).
-*The Economist Style Guide* http://www.economist.com/styleguide/introduction
-Directorate of Intelligence's *Style Manual & Writers Guide for Intelligence Publications* http://www.nationalsecuritylaw.org/files/received/CIA/DI_Style_Manual.pdf

Professional Presentations

-Few, Stephen. 2012. *Show Me the Numbers: Designing Tables and Graphs to Enlighten* (Analytics Press)
-Tufte, Edward R. ←almost anything by this author
-William, Robin. 1992. *The PC is not a Typewriter* (Peachpit)
-Wong, Dona M. 2013. *The Wall Street Journal Guide to Information Graphics: The Dos and Don'ts of Presenting Data, Facts, and Figures Paperback* (WW Norton).