PLS 211 2L

Quantitative Methods in Political Science

MW 5.30-6.45 PM

Fall 2018

Contact Information

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Course Objectives

The purpose of this course is to introduce students to the basic ideas in scientific epistemology, social science research design, statistical analyses, and the application of these ideas to substantive questions in political science. Some of the topics that will be discussed include:

- What is scientific endeavor?
- How is political science "scientific"?
- Theory building
- Hypothesis formulation
- Causal inferences
- Research design
- Operationalization of variables
- Hypothesis testing
- Basic regression

Learning Outcomes

By the end of this class, students should be able to:

- Understand basic approaches to scientific inquiries of the social world to substantive topics in political science

- Execute and interpret statistical analysis of quantitative political data to answer substantive questions in political science
- Recognize and understand threats to inference based on empirical data in political science, including the weaknesses of research designs and statistical analyses.
- Expose to various designs that seek to establish causal inferences
- Able to use R for basic statistical analyses

Disclaimer: The instructor reserves the right to make changes to the syllabus. Please remember to check your @nu.edu.kz email and the course page on a regular basis. However, changes in the reading will be announced at least one class before the intended changes.

Required Texts and Software

You are not required to buy any books for this class. All of the required readings will be available through Moodle. Most of the readings will be based on journal articles or peer-reviewed books and book chapter. We will be using only one book extensively and that will be:

Kellstadt, Paul M., and Guy D. Whitten. 2015. *The Fundamentals of Political Science Research,* Second Edition. New York: Cambridge University

Software: This course will teach material primarily through R. R is free and available for Windows and Macintosh from http://cran.rproject.org/.

RStudio is also free and available for Windows and Macintosh at http://www.rstudio.com.

Course Requirements

While this course does not require you to have prior knowledge of math or statistics, I assume that students in this class will have some background in high school mathematics. Also, this course also assumes basic knowledge of world history and contemporary events.

Participation (5%)

Since many important issues on which students are expected to have diverse opinions will be raised throughout this class, your participation will be a component of the grade.

Participation can take the form of engaging in full classroom and/or small-group discussions, and asking me questions on the course material.

Homework (35%)

There will be **5** homework assignments during this course. This means that each homework constitutes 7% of your final grade. This homework will be based on the materials we cover during class and I will give you a reasonable amount of time to complete each HW assignment (at least one week between assigning and submission). Late submissions are not tolerated. Students will be penalized 5% each day for each late homework submissions.

Exams (60%)

There will be two exams in this class, a midterm and a final. All exams are cumulative, but will focus on material learned since the last exam. Exams will be in class during a specific date. No class materials or references may be consulted during an exam.

Grade Components

Participation 5%
Homework (5): 35%
Midterm Exam: 30%
Final Exam: 30%

Final letter grades will be assigned according to the following scale with rounding from the second decimal place:

A: 95-100	B: 80-84	C: 65-70	D: 50-54
A-: 90-94	B-: 75-79	C-: 60-64	F: <50
B+: 85-89	C+-: 70-74	D+-: 55-59	

Important note: Students are responsible for submitting working, uncorrupted files for all assignments. If a file is corrupted and needs to be re-sent, and re-sending happens after the assignment deadline, a late penalty will be assessed.

Exams may not be taken late. Failing to take the exam at the scheduled time willresult in no credit for the exam.

Absence Policies

The class is a lecture/seminar meeting twice a week. Attendance is mandatory (Remember that your participation constitutes 5% of the class grade). Students should

arrive to each class already having done the readings for that class, and afterwards, review the readings in the context of the class discussion. If you must miss a class, it is your responsibility to contact me for any class handouts or assignments you may have missed. Extensions on the take-home exams (i.e. midterm and final) will be granted only in the case of medical excuse or verified emergency.

University Rules

Academic misconduct as defined in Chapter 2 of the Nazarbayev University Student Code of Conduct. It is an act in which a student: (1) seeks to claim credit for the work or efforts of another without authorization or citation ("plagiarism"); (2) uses unauthorized materials or fabricated data in any academic exercise; (3) forges or falsifies academic documents or records; (4) intentionally impedes or damages the academic work of others; (5) engages in conduct aimed at making false representation of any student's academic performance; (6) engages in any form of cheating on an exam or assignment; (7) assists other students in any of these acts.

Acts of academic misconduct may result in the imposition of any of Category A, B, or C sanctions as described in Articles 3-5 of Chapter 2 of the Nazarbayev University Student Code of Conduct. Each particular instance of misconduct will be judged on its own merits, taking into account the severity of the incident, the existence or absence of a prior record of wrongdoing, and the extent to which the interests and mission of the University are affected.

Plagiarism is defined as the act of using the ideas or work of another person or persons as if they were one's own without giving proper credit to the source. Such an action is not plagiarism if it is ascertained that the ideas were arrived at through independent reasoning or logic or where the thought or idea is common knowledge.

Acknowledgement of an original author or source must be made through appropriate references; e.g., quotation marks, footnotes, or commentary. Examples of plagiarism include but are not limited to the following: the submission of a work, either in part or in whole completed by another; failure to give credit for ideas, statements, facts or conclusions which rightfully belong to another; failure to use quotation marks (or other means of setting apart, such as the use of indentation or a different font size) when quoting directly from another, whether it be a paragraph, a sentence, or even a part thereof; close and lengthy paraphrasing of another's writing without credit or originality; use of another's project or programs or part thereof without giving credit.

Course Schedule

Monday, 13 August 2018

Introduction to the course – Why this class is a prerequisite for Political Science majors?

Wednesday, 15 August 2018

No Class (Class will be made up on a Saturday in September)

Week 2 (20 August – 22 August 2018)

Topic: Is political science really science?

Readings:

- Kellstedt and Whitten, Ch. 1 up to and including Section 1.2.
- Alan Musgrave, "How Popper [Might Have] Solved the Problem of Induction." Philosophy 19 (January 2004): pp. 19-31.
- Andrew Ehrenberg, "Even the Social Sciences Have Laws." Nature 365 (September 30, 1993): p. 385.
- Alex Rosenberg and Tyler Curtain, "What is Economics Good for?" The New York Times (August 24, 2013). Link: https://opinionator.blogs.nytimes.com/2013/08/24/what-is-economics-good-for/

Homework 1 due on 24 August 2018 at 11.59 pm

Week 3 (27 August – 29 August 2018)

Topic: Research questions, theories, concepts, and hypotheses

Readings:

- Kellstedt and Whitten, Chapter 1 and 2

Week 4 (3 September– 5 September 2018)

Topic: Research design (Logic of experimentation -- Causal Inference)

Readings:

- Kellstedt and Whitten, Ch. 3 and Ch. 4 up to and including Section 4.2.
- Joel Turner, "The Messenger Overwhelming the Message: Ideological Cues and Perceptions of Bias in Television News." Political Behavior 29 (December 2007): 441-464.

Week 5 (10 September– 12 September 2018)

Topic: Research design (Non-Experimental – Large Sample Design)

Readings:

- Kellstedt and Whitten, Ch. 4, Section 4.3-end.
- Alan S. Gerber and Donald P. Green, "Do Phone Calls Increase Voter Turnout? A Field Experiment." Public Opinion Quarterly 65 (Spring 2001).
- David Broockman and Donald P. Green,"Do Online Advertisements Increase Political Candidates' Name Recognition or Favorability? Evidence from Randomized Field Experiments." Political Behavior 36 (2014), 263-289.

Homework 2 due on 14 August 2018 at 11.59 pm

Week 6 (17 September– 19 September 2018)

Topic: Measurement: levels of measurement, reliability, and validity

Readings:

- Kellstedt and Whitten, Ch. 5 up to and including Section 5.8.
- Jeffrey A. Segal and Albert D. Cover, "Ideological Values and the Votes of US Supreme Court Justices." American Political Science Review 83 (June 1989), 557-564.

Week 7 (24 September– 26 September 2018)

Topic: Descriptive Statistics

Readings:

- Kellstedt and Whitten, Ch. 5. from Section 5.9 to the end
- Adam Hughes, "Visualizing inequality: How graphical emphasis shapes public opinion." Research and Politics (2015).

Saturday, 28 September 2018

Topic: Summary of the course so far and R training.

Week 8 (1 October– 3 October 2018)

Topic: Hypothesis Testing, Crosstabs and the $\square$ $\square$ test

Readings:

- Kellstedt and Whitten, Ch. 7, Sections 7.1-7.3 and 7.4.2.
- Kellstedt and Whitten, Ch. 7, Section 7.4.1

Homework 3 due on 5 October 2018 at 11.59 pm

Fall Break – (No class on 8 & 10 October 2018)

Week 9 (15 October– 17 October 2018)

Midterm on October 15 2018 in class.

Topic: Correlation

Readings:

- Kellstedt and Whitten, Ch. 7, Section 7.4.3
- Amy Caiazza, "Does Women's Representation in Elected Office Lead to Women-Friendly Policy?" Women and Politics 26 (2004), 35-70.

Week 10 (22 October– 24 October 2018)

Topic: Probability distributions and sampling

Readings:

- Kellstedt and Whitten, Chapter 6.

Week 11 (29 October– 31 October 2018)

Topic: Regression – Theory, inference, multi-variate, and interpretation (Part 1)

Readings:

- Kellstedt and Whitten, Ch. 7, Sections 7.1-7.3 and 7.4.2.
- Kellstedt and Whitten, Ch. 9

Week 12 (5 November– 7 November 2018)

Topic: Regression – Theory, inference, multi-variate, and interpretation (Part 2)

Readings:

- Alan Abramowitz, "Will Time for Change Mean Time for Trump?" PS: Political Science and Politics 49 (2016)
- Donohue III, John J., and Steven D. Levitt. "The impact of legalized abortion on crime." The Quarterly Journal of Economics 116, no. 2 (2001): 379-420

Homework 4 due on 2 November 2018 at 11.59 pm

Week 13 (12 November– 14 November 2018)

Topic: Techniques and problems with data collection

Readings:

- Steven Levitt and Sudhir Venkatesh, "An Economic Analysis of a Drug-Selling Gang's Finances." Quarterly Journal of Economics 115 (2000): 755-789.
- Shahryar Minhas, Jay Ulfelder and Michael D. Ward, "Mining texts to efficiently generate global data on political regime types." Research and Politics (2015)

Week 14 (19 November– 21 November 2018)

Topic: Putting all together – Drafting a political science research

Readings:

- Kellstedt and Whitten, Ch. 12

Homework 5 due on 23 November 2018 at 11.59 pm