Dartmouth College
Department of Government

Quantitative Political Analysis

Course Number:	Government 10.01
Term, Year:	Fall, 2013
Class Room:	TBA
Class Time:	Mon, Wed, Fri 11:15-12:20 (x-period: Tue 12:00-12:50)

Instructor:	Associate Professor Yusaku Horiuchi
Office Location:	Silsby 204
Email Address:	yusaku.horiuchi@dartmouth.edu
Office Phone:	(603) 646-2828
Office Hours:	Mon, 13:30-15:30, or by appointment

COURSE OBJECTIVES

Political scientists frequently address questions about the *causes and effects* of political institutions, major political events, electoral and legislative behavior, voters' political attitudes, policy outcomes, etc., and attempt to answer them empirically. This course teaches the fundamental logic of such empirical political research and strategies for causal inference. It also introduces essential tools for statistical analysis.

LEARNING OUTCOMES

Upon successful completion of this course, you will be able to:

1. Identify your own empirical research questions and develop suitable research plans to answer the questions;
2. Undertake critical evaluations of methodological issues and problems in existing quantitative political research;
3. Demonstrate a basic knowledge of commonly used tools in quantitative political research, including randomized experiments, natural experiments, contingency tables, and multiple regression;
4. Conduct simple statistical analysis using Stata (statistical software); and
5. Consider a variety of topics and approaches to empirical political research.

PRE-REQUISITES

This course has no prerequisites. It requires no prior experience with statistics, advance mathematics, or computing.

COURSE SCHEDULE

Week	Date	Day	Lectures	Stata	Project
1	9/16/13	M	Introduction		
1	9/17/13	Tu			(No session)
1	9/18/13	W	Lecture 1		
1	9/20/13	F	Lecture 2		
2	9/23/13	M	Lecture 3		
2	9/24/13	Tu		Session 1	
2	9/25/13	W	Lecture 4		
2	9/27/13	F	Lecture 5		
3	9/30/13	M	Lecture 6		
3	10/1/13	Tu			CGM 1
3	10/2/13	W	Lecture 7		
3	10/4/13	F	Lecture 8		
4	10/7/13	M	Lecture 9		
4	10/8/13	Tu			CGM 2
4	10/9/13	W	Lecture 10		
4	10/11/13	F	A Midterm Exam		
5	10/14/13	M	Lecture 11		(A Proposal Due)
5	10/15/13	Tu		Session 2	
5	10/16/13	W	Lecture 12		
5	10/18/13	F	Lecture 13		
6	10/21/13	M	Lecture 14		
6	10/22/13	Tu		Session 3	
6	10/23/13	W	Lecture 15		
6	10/25/13	F	Lecture 16		
7	10/28/13	M	Lecture 17		
7	10/29/13	Tu		Session 4	
7	10/30/13	W	Lecture 18		
7	11/1/13	F	Lecture 19		
8	11/4/13	M	Lecture 20		
8	11/5/13	Tu		Session 5	
8	11/6/13	W	Lecture 21		
8	11/8/13	F	Lecture 22		
9	11/11/13	M	Lecture 23		
9	11/12/13	Tu		Session 6	
9	11/13/13	W	Lecture 24		
9	11/15/13	F			Presentation
10	11/18/13	M	Review		

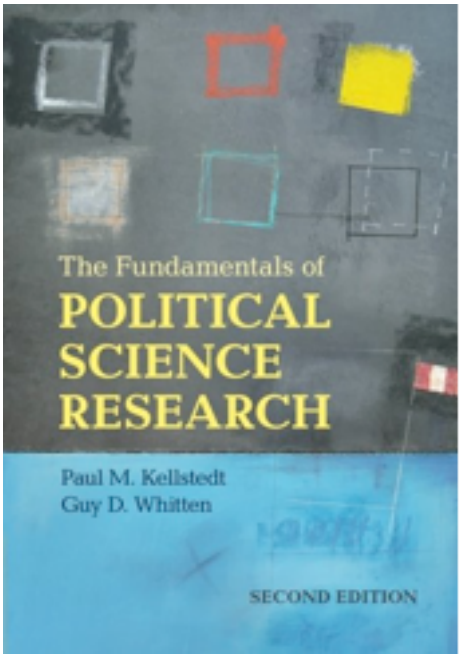
Note: CGM = Compulsory Group Meeting. The final exam will be held on November 24. See *Assignments* section for details about Stata and Project. The schedule is subject to change.

READINGS

This course has the following textbook:

Kellstedt, Paul M, and Guy D. Whitten. 2013. *The Fundamentals of Political Science Research*. Second Edition. Cambridge: Cambridge University Press.

A new or used copy is available at Wheelock Books. Alternatively, you can purchase it from Amazon.com or other online retailers.



It is strongly recommended to visit the publisher's website and use publicly available resources (STATA Data Sets, and "Using Stata with FPSR.pdf").

Additional readings will be posted on Blackboard.

TOPICS

This course intends to cover all the chapters of the above textbook. If time permits, additional materials will be added. The topics covered include the following:

Chapter 1	The Scientific Study of Politics
Chapter 2	The Art of Theory Building
Chapter 3	Evaluating Causal Relationships
Chapter 4	Research Design
Chapter 5	Getting to Know Your Data: Measurement and Variations

Chapter 6 Probability and Statistical Inference
Chapter 7 Bivariate Hypothesis Testing
Chapter 8 Bivariate Regression Models
Chapter 9 Multiple Regression: The Basics
Chapter 10 Multiple Regression Model Specification
Chapter 11 Limited Dependent Variables and Time-Series Data
Chapter 12 Putting It All Together to Produce Effective Research

ASSIGNMENTS

Your overall grade for this course is made up of the following elements:

25% Homework
20% A Midterm Exam
25% A Group Research Project
30% A Final Exam

**** Final course grades will be curved. ****

Homework

During the term, short take-home assignments (i.e., short essay, problem sets, Stata exercises, etc.) will be assigned on many (i.e., 12-15) of class meetings, and will be due at the beginning of the next class meeting. *Late submissions will not be accepted unless prior permission was given*. *Each student's lowest two homework grades will be dropped in the final grade calculations.* This option should be reserved for illness, family emergencies, or other unforeseen events.

A Midterm Exam

There will be an in-class and *closed* book midterm exam on October 11 (Friday). It will draw from assigned readings, homework exercises, and class discussions up to that point. There may be some questions about statistics, depending on the progress of lectures. In such a case, you are allowed to use a calculator with no information stored in memory.

A Group Research Project

Early in this term, you will be assigned to a team of five students. You will work with this team throughout the term on a group research project.

For this project, each team should choose one of the following two options:

Option A: Original Research

> Specify an original research question, briefly discuss why it matters, formulate/state an empirical causal hypothesis, develop and execute a

research plan (e.g., design a randomized experiment, identify a natural experiment situation, administer a survey, collect cross-national data, etc.), and analyze quantitative data based on statistical methods.

Option B: Replication and Extension

Find a political science journal article that tests an empirical causal hypothesis based on relatively simple statistical methods (e.g., Chi-square tests based on cross-tabulations, OLS regressions using cross-national data, simple randomized experiments, etc.), summarize the article (a question, its importance, hypotheses and findings, data, methods, etc.), replicate the results, discuss some potential problems in the original analysis, and undertake extension (i.e., running regressions with additional variables, executing proper statistical tests not done in the original analysis, applying the same model using data from other countries, etc.).

IMPORTANT: The assessment is based on the quality of research design and statistical analysis, not on substantive findings. In other words, you do *not* need to worry about whether your hypothesis is empirically supposed, whether you can replicate the results presented in an article you choose, whether you can produce interesting results by extension, etc.

Compulsory Group Meetings (CGM)

During the first half of the term, there will be two compulsory group meetings during x-periods on October 1 (Tuesday), and October 8 (Tuesday). Each team should meet – anywhere you like – and prepare for the group project. After each CGM, each group should submit a half-to-one page summary of what you have done so far, what you discussed at the meeting, and what you intend to do in coming weeks (including the "division of labor" among team members). You should also list the names of team members who attended each meeting. The one-page summary should be submitted at the beginning of the next day's lecture.

IMPORTANT: *It may not be easy to find a topic for your group project. I strongly recommend each team (and/or each team member) to have individual consultations with me before the midterm exam. I may be able to suggest some specific research topics (and/or papers) based on your team's research interests.* You should also read Chapter 12 of the textbook to understand how to produce effective research

A Proposal

Each team should submit a one-to-two page proposal by October 14 (Monday), the first session after the midterm exam. In this proposal, each team should state which option you choose, what question you intend to examine (if Option A), which paper you intend to replicate (if Option B), what your hypothesis is (if Option A), why you think it is worth replicating it (Option B), how you design your research to test your hypothesis (if Option A), how you replicate-and-extend the study you choose (if Option B), etc.?

Presentation

During the penultimate session on November 15 (Friday), in Hinman Forum (the common area on the first floor of the Rockefeller Center), each team should present the findings as a poster.

A Project Paper

Each team should complete a co-authored research paper. It should be no longer than 12 double-spaced pages. This includes a title page, main text (with footnotes), figures and tables, references, and (if necessary) appendices. The paper is due on the day of the final exam, November 24 (Sunday), and only one copy of the project should be handed in per group. *It is strongly suggested to hand in the project paper early*. Late projects will not be accepted without any exception.

In your project paper, it is important that you distinguish your arguments and the arguments made by the authors of papers you cite. *Do not copy, paste and edit sentences in the article you choose!* You should follow American Political Science Association's Style Manual, which is available at <http://www.apsanet.org/media/PDFs/Publications/APSAStyleManual2006.pdf>. Details on citing sources are also available at <http://www.dartmouth.edu/~writing/sources/>.

Peer Assessment

Unless an exception is requested in writing and approved by me, all the members of each team must be fully engaged in the entire process of the group project – i.e., planning, discussions, data collection, data analysis, preparation of a post presentation, and writing the final paper, etc. Each member should also submit Peer Evaluation Form in the attached appendix by the day of the final exam on November 24 (Sunday).

Grades

The breakdown of your individual grade for this project is the following:

2% CGM Reports (no variation among project members in each team)
3% Proposal (ditto)
5% Presentation (ditto)
10% Project Paper (ditto)
5% Peer Assessment, which may vary among members in each team

A Final Exam

There will be a comprehensive final exam on November 24 (Sunday) at 3:00 PM (location TBA). You will be provided with relevant statistical tables and are allowed to use a calculator with no information stored in memory.

STATA

We will use Stata, a powerful and yet easy-to-use statistical package that runs on Windows, Macintosh and Unix platforms.

Installation

It is freely available to students using KeyAccess (K2Client). Please install Stata 12 on your computer and verify that you can run it successfully as soon as possible. Instructions for installation are provided at the website of Computing at Dartmouth: <http://www.dartmouth.edu/comp/soft-comp/software/statistics/stataintro.html>

A Statistical Consultant

Mr. Jianjun Hua is a statistical consultant providing Stata support for students in this course. His office is 179B Kiewit (Berry Library) and he can provide assistance to you with Stata during his office hours, which are Thursday 1:30-3:30pm from September 19 to November 21. He can be reached at < Jianjun.hua@dartmouth.edu> or (603) 646-6552.

Tutorial Sessions

To help you learn Statistics using Stata, we will have tutorial sessions during the following x-periods.

Session 1	September 24, 2013 (Tuesday)
Session 2	October 15, 2013 (Tuesday)
Session 3	October 22, 2013 (Tuesday)
Session 4	October 29, 2013 (Tuesday)
Session 5	November 5, 2013 (Tuesday)
Session 6	November 12, 2013 (Tuesday)

Session 1, which will be instructed by Mr. Hua, is aimed to help you install Stata. You should bring your laptop computer.

A day before each of Sessions 2-6, a short Stata exercise will be given as part of homework assignments. Attendance is optional, but it is strongly recommended to attend it. In each session, you should bring your laptop and work on the exercise. Mr. Hua and/or I will help you work on these exercises. You may also come to these tutorial sessions to ask Mr. Hua and/or me questions about your group project. Mr. Hua and/or I will try to answer as many questions as possible in these tutorial sessions.

Additional Resources

In addition, you should also consult the following resources:

1. Stata help — Simply type "help <command>" for any Stata command in the command window and the help file for that command will appear. For more help, click on the linked title of the help file (e.g., "[R] summarize") to open a PDF of the

relevant section of the Stata manual. The manual provides more extensive discussion and examples in the "Remarks" section, which appears below the text from the online help file.
2. Consult the Dartmouth Stata FAQ at <http://www.dartmouth.edu/comp/soft- comp/software/statistics/statafaq.html>
3. Google for answers: Extensive resources on Stata are now available online. Someone has probably asked a similar question in the past. UCLA's Stata resources site at <http://www.ats.ucla.edu/stat/stata/> is especially helpful.
4. Consult Mr. Hua by email at <Jianjun.hua@dartmouth.edu> or make an appointment to meet with him.
5. Feel free to contact me!

MATERIALS AND RESOURCES

PowerPoint Lecture Slides

PowerPoint lecture slides will be posted to the course Blackboard site after class. I do not post these before class because note taking is a valuable exercise, and I do not want my slides to substitute for your own notes.

Additional Readings

Suggested additional readings are listed at the end of this syllabus and are available at Baker-Berry Library Reserve Services. They are available for your exploration if you are interested in knowing more about research designs and methods in political science. You should try to read some of these, as well as other articles and books not listed in this syllabus, for your understandings and your assignments.

You should familiarize yourself with the Web of Science Database (specifically, Social Science Citation Index), to search for articles relevant to a topic of your interest. For more information, visit <http://libcat.dartmouth.edu/record=e1000358~S1>.

The Student Center for Writing, Research and Information Technology (RWIT)

RWIT provides students with assistance in conceptualizing, researching, and proofreading written work. For more information, visit <http://www.dartmouth.edu/~rwit/>.

The Academic Skills Center

The Academic Skills Center provides a variety of services designed to help students excel academically (e.g., tutors, study groups, skills-building workshops, etc.). For more information, visit <http://www.dartmouth.edu/~acskills/>.

Study Group

For this course, a study group will be organized by Ms. Leslie Schnyder, the Assistant Director at the Academic Skills Center. A study group is a small group of students who meet together regularly once a week with the aid of a trained leader to discuss concepts, confusions, and insights into course material. The main role of the study group is to help students organize their thoughts, test their understanding by asking and answering questions, learn how to approach the material and understand the basic concepts involved. In addition, students have often commented that they enjoy the subject more, are relieved to find that other students also have problems with the material and study more when they participate in a group. More information about the study group is available at <http://www.dartmouth.edu/~acskills/tutors/studygroups/>.

POLICIES

The Honor Principle

All students are reminded of their obligation to conduct themselves in accordance with the Standards of Conduct in general and with the Academic Honor Principle in particular. The Academic Honor Principle is available at <http://www.dartmouth.edu/~uja/honor/>. Please review the section on plagiarism in particular and contact me if you have any questions.

Late Submission

Late submissions will not be accepted unless prior permission was given. If you anticipate that you will have a problem meeting a deadline due to an excusable issue (e.g., family emergency, serious illness, etc.), please contact me before the assignment is due to make appropriate arrangements.

Technology in the Classroom

Please be respectful of your instructor and classmates by using your computers only for class-related purposes. Please also make sure to put your phone away before class starts and not take it out during class.

Disabilities

Students with disabilities enrolled in this course and who may need disability-related academic adjustments and services are encouraged to see me privately as early as possible in the term. Students requiring disability-related academic adjustments and services must consult the Student Accessibility Services office (301 Collis Student Center, 646-9900, <Student.Accessibility.Services@Dartmouth.edu>). Once SAS has authorized services, you must show the originally signed SAS Services and Consent Form and/or a letter on SAS letterhead to me. As a first step, if you have questions about whether you qualify to receive academic adjustments and services, you should contact the SAS office. All inquiries and discussions will remain confidential.

Religious Observance

Some students may wish to take part in religious observances that occur during this academic term. If you have a religious observance that conflicts with your participation in the course, please meet with me before the end of the second week of the term to discuss appropriate accommodations.

Office Hours

I will be available during the times noted on the first page for meetings with students. If you are unable to meet during these times, please email me to set up an appointment at an alternative time.

REFERENCES

Additional Readings

Brians, Craig Leonard, Lars Willnat, Jarol B. Manheim, and Richard C. Rich. 2010. *Empirical Political Analysis: Quantitative and Qualitative Research Methods*. Eighth Edition. Boston: Longman. [JA86 .E57 2011]

Klass, Gary M. 2012. *Just Plain Data Analysis: Finding, Presenting, and Interpreting Social Science Data*. Second Edition. Lanham, MD: Rowman and Littlefield. [HA29.K58 2008]

Monroe, Alan D. 2000. *Essentials of Political Research*. Boulder, CO: Westview. [JA71.M635 2000]

Pollock, Philip H. 2012. *The Essentials of Political Analysis*. Washington, DC: CQ Press. [JA86.P65 2012]

Pollock, Philip H. 2011. *A Stata Companion to Political Analysis*. Second Edition. Washington, DC: CQ Press. [JA86.P654 2011]

Shively, W. Phillips. 2013. *The Craft of Political Research*. Ninth Edition. Pearson Education. [JA71.S45 2013]

Wheelan, Charles. 2013. *Naked Statistics: Stripping the Dread from the Data.* New York: W. W. Norton & Company. [QA276.W458 2013]

Appendix

Government 10.01 (Fall 2013)
Peer evaluation form

Name/group #: _____

Please assign scores that reflect how you feel about the extent to which the other members of your group contributed to your group's research project. This will be your only opportunity to reward the members of your group who worked hard on your behalf. Note: (1) If you give everyone pretty much the same score, you will be hurting those who did the most and helping those who did the least. (2) You MUST submit this form by the last day of lecture on November 18 (Monday). Your response is not shown to anyone else, so please provide your candid reviews.

Instructions: In the space below, please rate each of the other members of your group:

1 (no contribution) **2** (limited contribution) **3** (minor contribution) **4** (major contribution)

Each member's peer evaluation score will be the average of the points they receive from the other members of the group. To complete the evaluation you should list the name of each member of your group, and assign the score for each.

	Name	Point (1 lowest – 4 highest)
1		
2		
3		
4		

Additional feedback

Please briefly describe the reasons for your highest and lowest ratings in the space below. Your comments should be descriptive, not evaluative; as clear and specific as possible; phrased in constructive terms; and focused on areas in which the student has made especially valuable contributions or could improve in the future.