

POL 222H1 (F) INTRODUCTION TO QUANTITATIVE REASONING I

Tuesdays and Thursdays, 6- 8 pm, LM 162

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Office Hours:

TA:

What this course is all about:

This course introduces students to the underlying ideas and methods of political science and how the scientific method allows scholars to answer questions about politics and power. We will cover principles of research design, and introduce the concepts underpinning statistical inference, with the goal of enabling students to read statistical research. The course emphasizes being able to understand the kinds of descriptive and inferential statistics presented in many professional and policymaking jobs, that help practitioners make better decisions and efficiently communicate their findings. No mathematical background beyond elementary-school arithmetic and familiarity with simple graphs is required.

Learning objectives:

At the end of this course, I expect all students to:

- Become an informed reader of political scholarship.
- Understand critical features of the scientific method and apply such principles to the study of politics.
- Demonstrate a basic understanding of social statistical methods, terms and the interpretation of common statistical methodologies.
- Apply common statistical methods to answer research questions using public opinion data.

Lectures & Tutorials

Attendance in lectures is strongly recommended and the material from those lectures (drawing on course readings) will loom large in the tests. Tutorials are presently scheduled for Tuesdays and Thursdays, 4-5 pm in BL 113, 5-6 pm in LM 123 and 8-9 pm in SS2111, but during May will only meet on May 16, May 21 and May 30. In June, tutorials will meet more regularly may be held after the midterm in a campus computer lab. Dependent on lab availability, we will also schedule time before Worksheets 1-3 are due when the TA and/or the instructor can provide hands on support to students completing those tasks.

Required Readings

Textbook-style readings are primarily found in two on-line, open source methodological textbooks and one draft textbook that the instructor has offered to pilot:

Bueno de Mesquita, Ethan and Anthony Fowler. *Thinking Clearly in a Data-Driven Age*. Working Draft, March 29, 2019. Unpublished, but available to you on Quercus.

Bhattacharjee, Anol, "Social Science Research: Principles, Methods, and Practices" (2012). Textbooks Collection, University of South Florida. 2nd Edition. Available in seven languages, including English, here: http://scholarcommons.usf.edu/oa_textbooks/3

Jenkins-Smith, Hank C., Ripberger, Joseph T., Copeland, Gary, Nowlin, Matthew C., Hughes, Tyler, Fister, Aaron L., Wehde, Wesley (2017). "Quantitative Research Methods for Political Science, Public Policy and Public Administration (With Applications in R)." <https://shareok.org/handle/11244/52244>

The information about social science research methods is what matters, rather than any particular reading. There are many texts that cover similar material, and little is "new." Students are encouraged to substitute or augment the above texts with any of the following, especially if such texts are already owned or students have a strong preference for printed materials:

The text used during the fall and winter term for POL222 (one chapter is required):

Kellstedt, Paul M. and Guy Whitten. *Fundamentals of Political Science Research*, Cambridge University Press, 2nd or 3rd Edition

The text used at UTSC for a similar course:

Barakso, Maryann, Daniel M. Sabet, and Brian Schaffner. *Understanding Political Science Research Methods: The Challenge of Inference*. Routledge, 2014.

The text ordered for POL232 will surely also be relevant.

To help guide your reading, I will post a review guide for the midterm and/or a list of key terms. It will often be obvious which chapters from the above texts substitute for the on-line texts, but in the reading schedule below, I've also tried to indicate which chapters substitute.

Most weeks, there are also required readings from academic journals and websites. All of these readings are available for free via the University of Toronto library or will be available on Blackboard.

Evaluation and Assessments

GRADING SCHEME	%	Due Date
Participation/Attendance	5	
Worksheet 1: Hypotheses	5	May 16
Reading Quizzes	5	May 9 [^] , May 16, May 30 & June 13
Article Summary	10	May 21
Worksheet 2: Descriptive Statistics	5	June 3
Worksheet 3: Crosstabulations & t-tests	10	June 10
Worksheet 4: Regression	10	June 14
Midterm	25	May 23
Final Exam	25	TBA

[^] Must be completed one week after posted deadline, on May 16.

GRADING POLICIES

All matters of grading, exemptions, and discipline procedures will be handled in accordance with the Faculty Arts & Science policies. Late assignments will be penalized 5% per day for the first eight days of lateness. All assignments and quizzes are due on-line by midnight on the date the assignment is due. Quizzes cannot be submitted late.

After eight calendar days of lateness, the teaching assistant and the instructor will refuse to accept the work for grading.

Extensions for non-health related reasons may only be granted on the day prior to the deadline. Students who are celebrating holidays during the term, including those students fasting during Ramadan or invited to share relevant celebrations are strongly encouraged to speak to the professor to find appropriate accommodations to enable them to observe holidays and attend to family obligations while still excelling in the course. Students whose health renders them unable to complete an assignment should contact the professor before deadlines under non-exceptional circumstances.

There will be an opportunity to take the midterm if a student has an excused absence, but the make-up test must be completed within five days of the original test.

Any student who believes that any work has been unfairly graded may ask the instructor to re-evaluate his or her work. Grading appeals should be submitted with a cover letter explaining the basis of the appeal to the instructor or the teaching assistant. No oral or emailed appeals will be considered. Such re-marking may involve the entire piece of work, and may raise or lower the mark. All other appeals and complaints will be handled in a manner consistent with Faculty Arts & Science policies. These policies can be found at: <http://www.artsci.utoronto.ca/main/faculty/resources/faculty/acaresources>

Students are strongly advised to keep rough and draft work, and copies of all submitted assignments. Utilize “the cloud” as a backup or primary folder for your classwork whenever possible (the university provides access to OneDrive, but Google Drive, Dropbox, iCloud, and [the Canadian] Sync.com can be utilized for no cost. All essays/assignments should be kept by the student until the marked essays/assignments have been returned to them and the grades are posted.

ASSIGNMENT DETAILS

NOTE: Complete details of the assignments will be available in separate hand-outs distributed on Blackboard.

Worksheets

Worksheet 1: Hypotheses. A short worksheet intended to help you master writing hypothesis statements, transforming value statements into testable hypotheses, differentiating independent and dependent variables and identifying units of analysis. 5%

Worksheet 2: Descriptive Statistics. A short worksheet designed to give you the opportunity to learn how to download data, complete several recodes and communicate the relevant descriptive statistics (including central tendencies and measures of dispersion). 5%

Worksheet 3: Crosstabulations and t-tests. A worksheet to give you practice running and analyzing crosstabulations and t-tests. 10%

Worksheet 4: Regression. For this worksheet you will run several multivariate regression analyses and interpret the results. 10%

Reading Quizzes

Below, you will find four class sessions that are highlighted with an asterisk. For these lectures, you will find an on-line open book quiz on that week's readings on Quercus. Each quiz includes five to ten multiple choice and/or true/false questions. A copy of the questions in a Word or PDF file can be consulted while you are completing the readings. When you are ready, please log into Quercus and submit your answers there. You will have one chance to take each quiz, so be sure you are ready to answer each question before opening the quiz on Quercus. Quizzes cannot be taken late.

Article Summary

A set of questions on Fried et al.'s research into police corruption in Mexico that will ask you report on the important question the article seeks to answer, identify the competing perspectives other scholars had on the incidence of corruption, summarize the article's findings, and describe the methods the author's employed to complete their study.

Exams

Midterm. A multiple choice test administered during class on May 23 covering material introduced in class since the beginning of term. Expect many questions on key concepts explained in both readings and lectures, along with at least a few questions on readings that were not extensively covered in lecture to reward the most attentive and conscientious students.

Final. A test with both multiple choice and short answer questions on material since the midterm (although some key concepts like hypotheses introduced early in the term may be revisited). Expect many questions that gauge your ability to interpret statistical tables and a few substantive questions on required readings.

PARTICIPATION:

Lecture time will be a mixture of lecture and opportunities for discussion. You can also expect to participate on-line on Blackboard through discussion forums. On such forums you will find occasional discussions on topics suggested by the readings or lectures, and an opportunity to post a picture of a puppy or a kitten before the third class.

PLAGIARISM

Plagiarism is serious academic offence and will be dealt with accordingly. For further clarification and information on plagiarism please see Writing at the University of Toronto

<http://www.writing.utoronto.ca/advice/using-sources>

Although there may be opportunities to consult with classmates and to collaborate on certain assignments with the prior consent of the teaching assistant or instructor, all work submitted must be original and reflect the student's own efforts.

Turnitin.com

Students agree that by taking this course all required work will be subject to submission for textual similarity review for the detection of plagiarism. Normally, students will be required to submit their course essays to Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms

that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site. These requirements extend in POL222 to the submission of worksheets & the article summary, except when the worksheet (or quiz) is entirely or predominantly multiple choice. The class ID for turnitin.com is 21184086 and the password is: reliability7

Accessibility Needs

I wholeheartedly share the University of Toronto's commitment to accessibility and hope that every student is given a fair opportunity to excel in this course. Students with diverse learning styles and needs are welcome in this course. I invite you to discuss any accessibility concerns about the course, the classroom or course materials with me and/or staffers at Accessibility Services. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services at 416-978-8060 or accessibility.services@utoronto.ca. Appointments and drop-in sessions for accessibility advisors and learning strategists are available. For more information, please visit <http://studentlife.utoronto.ca/as>

Other

Course Blackboard Site:

The Blackboard website is accessible when you log into <http://portal.utoronto.ca> using your UTORid. You can find the course listed along with other course websites in the top-left corner. On the Blackboard website you will find updated versions of this syllabus, details of all assignments, discussion forums and the course gradebook. Through Blackboard you will submit assignments to Turnitin.com.

From time to time, class announcements & material will be delivered via e-mail and/or announcements through Blackboard. It is the students' responsibility to maintain their e-mail addresses in good working order and to ensure that the e-mail address known to the university (and listed on Blackboard) is accurate. Failure to receive important class announcements & messages are NOT legitimate excuses for missing class work.

Contact

You are welcome to meet with me. My office hours are officially before class on Thursdays, but I will usually be on campus during the afternoon prior to class on Tuesday too, and will be able to linger after class on Thursdays to answer any questions from students. The best way to contact me is through email, but I am happy to set up a phone call with you at our mutual convenience. Because it is difficult to get to know many students in a large class, any group of four students may arrange Dutch-treat dinners or coffee-breaks with me before class on campus. I especially look forward to talking to you about topics related to the course or current political events.

Miscellaneous

Please be comfortable bringing your dinner to class, but be conscientious of needing to leave the classroom clean and avoiding food that may distract your classmates because of a strong smell or loud chewing noises.

Occasionally, students will find it helpful to consult class readings on a smartphone, tablet or laptop computer. Some students will also feel comfortable taking notes on electronic devices. However, due to

the ease in which such devices can distract oneself and one's classmates, I recommend that students plan on taking notes with a pen and paper. If you are using an electronic device during class, please endeavor to ensure that your usage does not distract your classmates.

READING SCHEDULE

Quizzes are administered on the readings on Blackboard on the weeks marked with a *

May 7 Scientific Method & Introduction

Bhattacharjee, Anol, "Social Science Research: Principles, Methods, and Practices" (2012). *Textbooks Collection*. 2nd Edition., Ch. 2

http://scholarcommons.usf.edu/oa_textbooks/3

Powner, Leanne. "Reading and Understanding Political Science" (2007)

<https://www.leannepowner.com/tchdocs/readingsps.pdf>

Alternative textbooks:

Barakso, M. et al. *Understanding Political Science Research Methods: The Challenge of Inference*. Ch. 1 & 3.

Kellstedt & Whitten, *Fundamentals of Political Science Research*, 2nd Edition. Ch. 1

May 9 Scientific and other forms of knowledge*

Thinking Book, Ch. 1 – 2.

Bhattacharjee, Ch. 4

[Blackstone, Amy] *Principles of Sociological Inquiry* Saylor Foundation

<https://www.saylor.org/site/textbooks/Principles%20of%20Sociological%20Inquiry.pdf>, Ch. 1

Rostker, Bernard D. Susan D. Hosek and Mary E. Vaiana. "Gays in the Military: Eventually, New Facts Conquer Old Taboos." *Rand Review* Spring 2011.

<http://www.rand.org/pubs/periodicals/rand-review/issues/2011/spring/gays.html>

Alternative textbooks:

Barakso, M. et al. *Understanding Political Science Research Methods: The Challenge of Inference*. Intro & Ch. 2

May 12 (Sunday, outside of class) On Blackboard: Could you learn about a social event or phenomena from reading a novel? What advantages might novels have over scholarly research? In what situations might make novels preferable to academic non-fiction? How might novels be inferior to scholarly research? Post to a discussion forum on Blackboard for participation credit by midnight on Sunday, May 13. A magazine article about this issue is on the forum as background reading for a very real controversy at universities today. Joining the discussion will result in participation credit.

May 14 Causality

Thinking Book, Ch. 3 & 9

Kellstedt, Paul M. and Guy Whitten. *Fundamentals of Political Science Research*, Cambridge University Press, Ch. 3

[Barkan, Steven] Sociology: Understanding and Changing the Social World, pp. 45-47
<http://open.lib.umn.edu/sociology/>

[Blackstone, Amy] *Principles of Sociological Inquiry* Saylor Foundation
<https://www.saylor.org/site/textbooks/Principles%20of%20Sociological%20Inquiry.pdf>, pp. 54-59

Fried, Brian J., Paul Lagunes and Atheendar Venkataramani. 2010. "Corruption and Inequality at the Crossroads: A Multimethod Study of Bribery and Discrimination in Latin America." *Latin America Research Review* 45:1

May 16 Experiments and Control *

Thinking Book, Ch. 10 (especially pp. 255-262) & Ch. 11

Licklider, Roy. "The consequences of negotiated settlements in civil wars, 1945–1993." *American Political Science Review* 89.03 (1995): 681-690.

Nyhan, Brendan, Jason Reifler, Sean Richey, and Gary L. Freed. "Effective messages in vaccine promotion: a randomized trial." *Pediatrics* 133, no. 4 (2014): e835-e842.

Gadarian, Shana Kushner, and Bethany Albertson. "Anxiety, immigration, and the search for information." *Political Psychology* 35, no. 2 (2014): 133-164.

Wantchekon, Leonard. 2003. "Clientelism and Voting Behavior: Evidence from a Field Experiment in Benin." *World Politics* 55: 399- 422.

Alternative textbooks: Bhattacharjee, Ch. 10

Hypothesis Worksheet due at midnight via turnitin.com

May 21 Operationalization and Measurement

Bhattacharjee, Ch. 6 & 7

Putnam, Robert, "Tuning in and turning out: the strange disappearance of social capital in America." *PS: Political science and politics*, December 1995.

Recommended: Craig, Stephen C., Richard G. Niemi and Glenn E. Silver. "Political Efficacy and Trust: A Report on the NES Pilot Study Items." *Political Behavior*, Vol. 12, No. 3 (Sep., 1990), pp. 289-314.

Article Summary of Fried et al due at midnight

May 23 Midterm

May 28 Descriptive Statistics

Bhattacharjee, Ch. 14

Jenkins-Smith, H. et al. Quantitative Research Methods for Political Science, Public Policy and Public Administration (With Applications in R): 3rd Edition, Ch. 3
<https://shareok.org/handle/11244/52244>

Sides, John, and Kimberly Gross. "Stereotypes of Muslims and Support for the War on Terror." *The Journal of Politics* 75, no. 03 (2013): 583-598.

May 30 Probability and Sampling*

Jenkins-Smith, H. et al. Ch. 4-5.3

Thinking Book, Ch. 6-7

Murphy, Chad. "The evolution of the modern rhetorical presidency: A critical response." *Presidential Studies Quarterly* 38.2 (2008): 300-307.

June 3 Worksheet 1: Descriptive Statistics due at midnight.

June 4 Bivariate Relationships

Jenkins-Smith, H. et al. Ch. 5.4-6

Thinking Book, Ch. 4

June 6 Introduction to Regression

Jenkins-Smith, H. et al. Ch. 7

Thinking Book, Ch. 5

June 10 Worksheet 2: Crosstabulations & t-tests due at midnight.

June 11 Multivariate Regression Analysis

TBA

Wike, Richard and Nilanthi Samaranayake, "Where Terrorism Finds Support in the Muslim World: That May Depend on How You Define It - and Who Are the Targets," Pew Global Attitudes Project report, May 23, 2006, available at: <http://www.pewglobal.org/2006/05/23/where-terrorism-finds-support-in-the-muslim-world/>

June 13 Reading Advanced Analyses*

Thinking Book, Ch. 12 & 15

Rodrik, Dani, Arvind Subramanian and Francesco Trebbi. "Institutions Rule: The Primacy of Institutions Over Geography and Integration in Economic Development." *Journal of Economic Growth*, June 2004, Volume 9(2), pp 131-165.

Sides, John, and Kimberly Gross. "Stereotypes of Muslims and Support for the War on Terror." *The Journal of Politics* 75, no. 03 (2013): 583-598.

June 14 Worksheet 3: Regression due at midnight.