

Political Inquiry 1

POLI 3492

Winter 2024

Tuesdays and Thursdays (14:35-15:55) Dunn Building (Room 301A)

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Office Hours: Thursdays 9:00-10:30am

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On weekdays, I will generally respond to your emails within 24 hours. Substantive questions are best discussed in person during office hours. Feel free to email me or to drop by during office hours to see me with any questions you may have or simply to chat about your progress in the course. This time is for you so I hope that you will use it. If these times do not work for you (or you'd rather speak online), please get in touch and we can arrange an alternative time to meet or see Brightspace for a virtual office hours option.

Course Description

This course provides students with a general introduction to empirical research methods in the social sciences. It introduces students to the most common statistical methods used by political scientists to analyze data (i.e., binary and linear regression), as well as the important decisions that must be made when designing research (i.e., sampling). While the class will provide students with the tools needed to perform their own data analysis, it will, more importantly, provide students with the ability to interpret and understand the results of empirical research and results more broadly. Data and scientific knowledge are routinely misrepresented in the media and popular culture, and the ability to accurately (and critically) interpret scientific results is an essential component to consuming information.

Course Objectives

As an introduction to quantitative methods, this class has three primary objectives:

- Provide students with an introduction to the most common statistical methods used by political scientists to analyze data
- Provide students with the necessary skills and tools to comprehend and critically evaluate empirical research
- Provide students with the tools needed to conduct their own analysis of empirical data

Course Format

This class will make use of a “flipped” classroom approach. A series of lecture videos will be posted on Brightspace each week. Replacing the traditional in person lecture content, these videos will allow you to revisit material, pause, and rewind when necessary. Students have routinely told me that this approach is remarkably beneficial to their learning in a class like this where the material is not only new, but somewhat daunting.

While you will watch the videos on your own, we will still meet in person twice a week. The Tuesday class will provide a short recap of the week's material, provide an opportunity to ask questions, and will usually have a hands-on exercise. The Thursday class will be dedicated to completing the weekly lab assignment.

Course content in research methods/statistics is iterative - that is, each weekly module or textbook chapter builds on the one before. To ensure proper comprehension of course material, and to make sure that students have the ability to complete their final assignments, there are a number of weekly lab assignments throughout the term. While this may seem overwhelming, lab assignments are relatively short, and they are designed to ensure student success in the class.

Course Textbook

Haan, Michael, and Jenny Godley. 2017. *An Introduction to Statistics for Canadian Social Scientists* (3rd Edition). Oxford University Press.

**Any additional readings will be indicated in the syllabus and posted on Brightspace.

Software

Completing this course **REQUIRES** the use of a statistical software program: Statistical Package for the Social Sciences (SPSS). This software is available for Dalhousie students to download on their personal computer. To download SPSS visit <http://software.dal.ca/> and enter your login details. Follow the download and installation instructions, including entering the appropriate licence information. Note that we will have course time in the computer lab each week.

Data

Throughout the course we will be looking at data from a variety of sources. The data that students will be using for their final course assignment will come from the 2015 Canadian Election Study (CES). Since 1965, Canadian political scientists have been conducting large-scale surveys every election year. The data include thousands of unique respondents and contain rich data on a variety of election related topics. The data is freely available to download and can be found online here: <https://ces-ec.sites.olt.ubc.ca/files/2018/08/CES2015-phone-SPSS.zip>

Weekly Lab assignments will draw on data provided by the textbook publisher (the 2013 Alberta Survey). You will need to visit the textbook [website](#) to download the data in order to complete lab assignments. Be sure to download the SPSS version of the dataset.

Note: Please download the CES data, the Alberta Survey, and the SPSS software ahead of time to ensure the programs/data are working properly on your machine. While technical issues can arise, they are not appropriate grounds for extensions on missed assignments. Students are responsible for ensuring that the programs work on their computers. Note that lab computers, which we will have access to, also have access to the necessary programs.

Assignments

Lab Assignments x 10 (40%)

Midterm (30%)

Empirical Research Paper (30%)

Online Bonus Quizzes (up to 4%)

**see weekly module schedule for details on when the various assignments are due.

Lab Assignments (40%)

Students will be required to complete a series of short lab assignments. These labs are designed to test comprehension and ensure that students have **hands-on experience** putting the lecture and textbook content into practice. You will be required to formulate hypotheses, analyze data, and interpret results. The Lab Manual for the course begins on **page 311** of the assigned textbook. On pages 314 and 315 you will find information for the data used in lab assignments (see above as well). The final section of each lab exercise includes a number of questions that must be completed and submitted via Brightspace. Not all labs listed in the textbook are required - the weekly schedule includes a list of specific labs that must be completed. With that said, I strongly encourage students to complete all the labs in the textbook (even those that aren't required) as they provide important skills and practice. Labs are due on Brightspace by the end of the week (i.e., Friday at 11:59pm). Late assignments will not be accepted.

Midterm (30%)

The midterm will be held in person on Tuesday February 27. The midterm will cover all assigned readings, lectures, and other posted materials for the first six modules. Students should bring pens/pencils as well as a calculator (not a cellphone!). The use of a cellphone/tablet/computer will not be permitted during the exam.

Empirical Research Paper (30%)

The major assignment for the course is an empirical research paper where students will conduct original statistical analyses and write a report interpreting their results. Data for this project will come from the 2015 Canadian Election Study (see above). Students should download the 2015 CES data and documentation (codebook) and become familiar with the survey questions that were asked of respondents. After you have looked at the data, think about a **dependent variable** (outcome) that you are interested in trying to explain/understand. Once you have your outcome, consult the literature and think about some potential relationships between your dependent variable and some set of **independent variables** (explanatory and controls). From here you can formulate your hypotheses and begin data analysis. Once your results are complete, you will need to interpret the results and connect them back to the literature in a written discussion.

While papers will differ with regards to their substantive topic, each paper should nonetheless share the following general format:

1. Introduction to the research question (1/2 - 1 page)
2. A brief overview of the scholarly literature on the topic (1 1/2 pages)
3. Hypothesis or hypotheses and how this relates to the supporting literature (1/2 page)
4. Description of the data being used (2-3 pages)
 - a. Brief discussion of the sample (where do the data come from, what are some sample characteristics – mean age, distribution of gender, etc.)
 - b. Identification of independent, dependent, and control variables for the analysis (why these variables?)
 - c. Discussion of measurement and sampling issues (are there limitations with how a particular construct was measured? How might this influence the results?)
 - d. Description of the techniques that will be used to analyze the data and a justification for these techniques. If you are using a logistic regression, for example, why is this more appropriate than a linear regression?
5. Presentation and discussion of the results. Was your hypothesis supported? (2 1/2 pages)

6. Short discussion of the implications of the results and how they fit within the existing literature (1/2 page)
7. Discussion of agenda for future research (1/2 page)

Note: the length of each section is a rough guideline. Final assignments should be approximately 8-10 double spaced pages in length (excluding references). Assignments are to be submitted via Brightspace by the end of April 8 (i.e., 11:59pm).

Online Bonus Quizzes

Throughout the semester (see schedule) there will be four optional online multiple-choice quizzes. These quizzes are not required. However, each quiz can result in a 1% bonus that will be added to your final course grade. While a total of 4% may seem small, this can make a big difference at the end of the semester.

Module	Topic	Readings	Labs and Quizzes
1	Introduction – Jan 9 & 11	Chapter 1. “Why Should I Want to Learn Statistics?” Miller, Laura. 2015. “ What Are the Odds? To learn to think critically, take a statistics class. ” <i>Slate</i> , August 31.	Lab # 1 (page 316-325)
2	Variables and Measurement – Jan 16 & 18	Chapter 2. “How Much Math Do I Need to Learn Statistics?” Chapter 3. “Univariate Statistics.”	Lab # 3 (page 329-335)
3	Descriptive Statistics – Jan 23 & 25	Chapter 5. “The Normal Curve” Chapter 6. “Measures of Central Tendency and Dispersion.” Chapter 7. “Standard Deviations, Standard Scores, and the Normal Distribution.” ** Please read the following article to see how z-scores are used in everyday life – like in sports reporting on how athletes compare to their peers. Yost, Travis. 2016. “ Panthers take advantage of Canucks in lopsided trade. ” TSN.	Lab # 6 (page 345-349) Online Bonus Quiz (Chapters 6 and 7)
4	Sampling and Probability – Jan 30 & Feb 1	Chapter 4. “Introduction to Probability.” Chapter 8. “Sampling.” Statistics Canada. 2017. “ Sampling Error. ” Government of Canada.	Lab # 7 (page 350-354)

5	Statistical Significance 1 – Feb 6 & 8	Chapter 9. “Generalizing from Samples to Populations.” Chapter 10. “Testing Hypotheses: Comparing Large and Small Samples to a Known Population.” **Please read the following article as an introduction to the “p-hacking” debate. Spears, Tom. 2016. “ Science world’s p-value controversy: little number, big problem. ” <i>Ottawa Citizen.</i>	Lab # 9 (page 359-361) Online Bonus Quiz (Chapters 9 and 10)
6	Statistical Significance 2 – Feb 13 & 15	Chapter 11. “Testing Hypotheses: Comparing Two Samples.”	Lab #10 (page 362-364)
Winter Break			
7	MIDTERM – Feb 27	MIDTERM	No Lab this week
8	Bivariate Relationships I: Nominal Variables – March 5 & 7	Chapter 12. “Bivariate Statistics for Nominal Data.”	Lab # 11 (page 365-370)
9	Bivariate Relationships II: Ordinal Variables – March 12 & 14	Chapter 13. “Bivariate Statistics for Ordinal Data.”	Lab # 12 (page 371-379) Online Bonus Quiz (Chapter 13)
10	Bivariate Relationships III: Interval Variables – March 19 & 21	Chapter 14. “Bivariate Statistics for Interval Data.”	Lab # 13 (page 380-384)
11	Multivariate Relationships (OLS) – March 26 & 28	Chapter 16. “Regression 1: Modelling Continuous Variables.”	Lab # 15 (page 392-398) **For this lab you will need to conduct a variable recode on the variable k12a. See Lab 14 in the textbook for further instructions.
12	Multivariate Relationships (Logistic) – April 2 & 4	Chapter 17. “Regression 2: Modelling Dichotomous Outcomes.” Chapter 18. “Regression Diagnostics.”	**No assigned lab this week. Come to class to work on your final assignment Online Bonus Quiz (Chapters 16 and 17)

University Grading Policy

Grade	Grade Point Value	Percentage	Definition	
A+ A A-	4.30 4.00 3.70	90-100 85-89 80-84	Excellent	Considerable evidence of original thinking; demonstrated outstanding capacity to analyze and synthesize; outstanding grasp of subject matter; evidence of extensive knowledge base.
B+ B B-	3.30 3.00 2.70	77-79 73-76 70-72	Good	Evidence of grasp of subject matter, some evidence of critical capacity and analytical ability; reasonable understanding of relevant issues; evidence of familiarity with the literature.
C+ C C-	2.30 2.00 1.70	65-69 60-64 55-59	Satisfactory	Evidence of some understanding of the subject matter; ability to develop solutions to simple problems; benefitting from his/her university experience.
D	1.00	50-54		Evidence of minimally acceptable familiarity with subject matter, critical and analytical skills (except in programs where a minimum grade of 'C' is required).
FM	0.00		Marginal Failure	Available only for Engineering, Health Professions and Commerce.
F	0.00	0-49	Inadequate	Insufficient evidence of understanding of the subject matter; weakness in critical and analytical skills; limited or irrelevant use of the literature.
INC	0.00		Incomplete	
W	Neutral and no credit obtained		Withdrew after deadline	
ILL	Neutral and no credit obtained		Compassionate reasons, illness	
P	Neutral		Pass	
TR	Neutral		Transfer credit on admission	
Pending	Neutral		Grade not reported	Neutral and no credit obtained

SECTION B: UNIVERSITY POLICIES, STATEMENTS, GUIDELINES and RESOURCES for SUPPORT

This course is governed by the academic rules and regulations set forth in the [University Calendar](#) and the Senate.

University Statements

Academic Integrity http://www.dal.ca/dept/university_secretariat/academic-integrity.html

At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect (The Center for Academic Integrity, Duke University, 1999). As a student, you are required to demonstrate these values in all of the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity.

Accessibility https://www.dal.ca/campus_life/academic-support/accessibility.html

The Advising and Access Services Centre is Dalhousie's centre of expertise for student accessibility and accommodation. The advising team works with students who request accommodation as a result of: a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (NS, NB, PEI, NFLD).

Student Code of Conduct

https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/student-life-policies/code-of-student-conduct.html

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner—perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution.

Diversity and Inclusion – Culture of Respect

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness (Strategic Priority 5.2) (read more: <http://www.dal.ca/cultureofrespect.html>)

Recognition of Mi'kmaq Territory

Dalhousie University would like to acknowledge that the University is on Traditional Mi'kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel and support. Contact the program at elders@dal.ca.

University Policies and Programs

Important Dates in the Academic Year (including add/drop dates)

http://www.dal.ca/academics/important_dates.html

University Grading Practices: Statement of Principles and Procedures

https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html

Scent-Free Program

<http://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html>

Learning and Support Resources

General Academic Support – Advising

https://www.dal.ca/campus_life/academic-support/advising.html (Halifax)

Fair Dealing Guidelines

<https://libraries.dal.ca/services/copyright-office/guidelines/fair-dealing-guidelines.html>

Dalhousie University Library <http://libraries.dal.ca>

Indigenous Students

https://www.dal.ca/campus_life/communities/indigenous.html

Black Students

https://www.dal.ca/campus_life/communities/black-student-advising.html

International Students

https://www.dal.ca/campus_life/international-centre.html

Student Health Services

https://www.dal.ca/campus_life/health-and-wellness.html

Counselling

https://www.dal.ca/campus_life/health-and-wellness/frequently-asked-questions-august-2017.html

Copyright Office

<https://libraries.dal.ca/services/copyright-office.html>

E-Learning website

<http://www.dal.ca/dept/elearning.html>

Dalhousie Student Advocacy Services

<http://dsu.ca/dsas>

Dalhousie Ombudsperson

https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html

Writing Centre

https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html

Faculty or Departmental Advising Support: Studying for Success Program

http://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html