Political Inquiry 1

POLI 3492

Winter 2021

Online

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Office: Henry Hicks Building, Room 360
Office Hours: Tuesdays 10:00am-11:00am (online via Collaborate link in Brightspace)
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On weekdays, I will generally respond to your emails within 24 hours. Substantive questions are best discussed during regularly scheduled office hours. Live office hours will be held once a week online via Collaborate Ultra in Brightspace.

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 be conducted online in an asynchronous fashion. A series of lecture videos will be uploaded to Brightspace each week under a specific module. These lectures can be viewed online and at your own pace, but should be viewed in conjunction with assigned course readings and in advance of any quizzes, labs, or midterms. In addition to weekly videos, modules will contain additional activities and resources. Once a week I will hold live office hours (Tuesdays 10:00am – 11:00am) via Collaborate (link in each Brightspace module) to answer questions and discuss course content with students.

Course content in statistics is iterative - that is each weekly module or 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 small lab assignments and quizzes throughout the term. <u>It will not be uncommon for students to have to complete either a quiz or a lab for each module of the course.</u> While this may seem overwhelming, the quizzes and 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 library login details. Follow the download and installation instructions, including entering the appropriate licence information. A computer capable of running the software and performing analyses is a requirement for the course.

Data

Throughout the course we will be looking at data from a variety of sources. The data that students will be using for their course assignments, 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-eec.sites.olt.ubc.ca/files/2018/08/CES2015-phone-SPSS.zip

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 as this is the program we will be using during the course.

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 will not be appropriate grounds for extensions on missed assignments. Students are responsible for ensuring that the programs work on their computers.

Assignments

Lab Assignments x 5 (30%)
Reading Quizzes x 5 (20%)
Midterm (20%)
Empirical Research Paper (30%)

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

Lab Assignments (30%)

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 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 before the start of the next module (i.e., Sunday at 11:59pm).

Reading Quizzes (20%)

During weeks where there is no lab exercise assigned, there will be a reading quiz based on one of the assigned textbook chapters (5 quizzes total). These are short multiple-choice quizzes and are based entirely on the textbook content. Quizzes will be become available on Brightspace on the Monday of the particular module (9:00am) and will remain open for the remainder of the week, closing on Sunday at 11:59pm. Once a quiz is started, you will have 1 hour to complete the questions.

Midterm (20%)

The midterm will be available starting February 22 at 9:00am. The midterm will cover all assigned readings, lectures, and other posted materials for the first six modules. The midterm will be available for 24 hours (that is, all submissions **must** be completed by February 23rd at 9:00am).

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. After you have looked at the data, think about a **dependent variable** (outcome) that you are interested in trying to explain. 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 discussion.

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

1. Introduction to the research question (1/2 - 1 page)
2. A brief overview of the scholarly literature on the topic (1 ½ pages)
3. Hypothesis or hypotheses and how this relates to the supporting literature (1/2 page)
4. Description of the data being used (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 ½ 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 8-10 double spaced pages in length (excluding references). Assignments are to be submitted via Brightspace by April 5 at 4:00pm.

Module	Topic	Readings	Quiz or Lab
1	Introduction - *Week of Jan 4*	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." *Slate*, August 31.	
2	Variables and Measurement - *Week of Jan 11*	Chapter 2. "How Much Math Do I Need to Learn Statistics?" Chapter 3. "Univariate Statistics."	Lab # 3 (page 329-335)
3	Descriptive Statistics - *Week of Jan 18*	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)
4	Sampling and Probability – *Week of Jan 25*	Chapter 4. "Introduction to Probability." Chapter 8. "Sampling." Statistics Canada. 2017. "Sampling Error." Government of Canada.	Quiz on Chapter 8

5	Statistical Significance 1 – *Week of Feb 1*	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." *Ottawa Citizen.*	Quiz on Chapter 9
6	Statistical Significance 2 – *Week of Feb 8*	Chapter 11. "Testing Hypotheses: Comparing Two Samples."	Lab #10 (page 362-364)
	Winter Break		
7	**MIDTERM** – *Week of Feb 22*	**MIDTERM**	**MIDTERM**
8	Bivariate Relationships I: Nominal Variables – *Week of March 1*	Chapter 12. "Bivariate Statistics for Nominal Data."	Lab # 11 (page 365-370)
9	Bivariate Relationships II: Ordinal Variables – *Week of March 8*	Chapter 13. "Bivariate Statistics for Ordinal Data."	Quiz on Chapter 13
10	Bivariate Relationships III: Interval Variables – *Week of March 15*	Chapter 14. "Bivariate Statistics for Interval Data."	Quiz on Chapter 14
11	Multivariate Relationships (OLS) – *Week of March 22*	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) – *Week of March 29*	Chapter 17. "Regression 2: Modelling Dichotomous Outcomes." Chapter 18. "Regression Diagnostics."	Quiz on Chapter 17

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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 Neutral and no credit obtained reported	

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