

POLI 3492 Political Inquiry I
Dalhousie University, Winter 2018
Tuesdays and Thursdays, 1:05-2:25
Dunn 301A

Instructor: Anders Hayden
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Course Description

This course is a general introduction to empirical research methods in political science and the social sciences more generally. It assumes no prior experience in this area. It covers a range of issues that are relevant to all kinds of empirical research, but the focus is on quantitative strategies (i.e., statistical analysis). Students will learn to understand the logic and assumptions behind statistical analyses, and gain practice with those methods to answer specific research questions using the statistical software package SPSS.

This course involves a fair amount of mathematical language, but it is really less about mathematics than it is about thinking logically about the research process and how to test knowledge claims. Readings and assignments keep the mathematics to a minimum necessary to understand key concepts. The goal is to understand quantitative analysis as a series of strategic/analytical choices. In other words, “I have this kind of problem. Which quantitative technique should I use, and how do I interpret the results?”

Course Format: Lectures and Lab Sessions

This is primarily a lecture course. There will be some overlap between the lectures and assigned readings, which is necessary to work through some of the more challenging concepts. However, lectures do not substitute for the readings and the readings do not substitute for the lectures. Students who do the assigned reading before class will have an easier time following the lecture and will likely do better on assignments and exams. (That is the case in all courses, but particularly so in this course, given the nature of the subject matter.)

If you find media articles related to course themes—i.e., which deal with the use of statistics in political debates or other social issues—that you would like to discuss in class, you are encouraged to bring them to the instructor’s attention.

Four of the classes will be computer lab sessions (see “Weekly Themes and Readings” below), where students will work semi-independently on small assignments using SPSS software. Lab instructions will be available on the course website. Lab sessions are scheduled to take place on February 6, February 27, March 13, and March 27. *The lab schedule is subject to change*—labs may take place later than scheduled if we have not yet covered enough material.

Textbook, Readings on Brightspace, and Library Reserves

The course has a required book available at the university bookstore:

Buttolph Johnson, Janet, H.T. Reynolds, and Jason D. Mycoff. 2016. *Political Science Research Methods*, 8th edition. CQ Press. (Referred to below as PSRM).

I sympathize with anyone who feels that the textbook is expensive. If you want to keep costs down, you will likely be able to find used copies from online sources such as amazon.ca, where a lower cost kindle version is also available. However, if you buy a used copy, it will be more convenient for you if you get the eighth edition—earlier editions will be similar, but the content and required pages will not be identical. If you need to save money and chose to buy the seventh edition, ask me for a copy of the 2015 syllabus for the pages you will need to read.

Links to some readings will be provided on Brightspace.

Some recommended readings are taken from the books listed below, which are available on reserve in the Killam Library. (In addition to the recommended sections below, you may find the texts by Brians et al. and Berdahl & Archer text to be useful if you are looking for a more basic introduction than you will find in the textbook for some of the statistical concepts).

Brians, Craig Leonard et al. 2011. *Empirical Political Analysis*. 8th edition. New York: Pearson Longman. (An earlier edition of the text is also on reserve).

Berdahl, Loleen and Keith Archer. 2015. *Explorations: Conducting Empirical Research in Canadian Political Science*. Toronto: Oxford University Press Canada.

Van Evera, Stephen. 1997. *Guide to Methods for Students of Political Science*. Ithaca, NY: Cornell University Press.

Software and Computer Access

We will be using software called Statistical Package for the Social Sciences (SPSS), a.k.a. IBM SPSS Statistics. SPSS is installed on the computers in all of the student computer labs on campus. These labs are *not* open 24 hours a day so plan accordingly. For more details on the location and opening hours of the labs, see:

<https://dalu.sharepoint.com/sites/mydal/dc/ITS/Wiki/Computer%20Labs.aspx>

SPSS is also available on computers in the Library Learning Commons (located in the Killam, Kellogg, and Sexton libraries).

Back Up Your Work!

Be careful to make back-up copies of work-in-progress and update them frequently, particularly when working with large datasets (see below). Computer problems will only be accepted as an excuse for late or incomplete assignments in truly exceptional circumstances. If you have hardware or software problems, contact the Help Desk: <http://www.dal.ca/dept/its/helpdesk.html>.

Datasets

We will work with datasets, including:

- ARDA Cross-National Socio-Economic and Religion Data, drawing on UN Human Development Reports and Central Intelligence Agency World Factbook, 2011:

<http://www.thearda.com/Archive/Files/Descriptions/ECON11.asp>

- British Election Study 2001 (selected data):

http://college.cqpress.com/sites/Portals/57/resources/data/BES_Data.zip

- Canadian Election Study 2011: <http://ces-eec.org/data/CES2011-final.zip>

You will have access to these datasets on the T drive on all university computers.

TA Availability

There are no tutorial sessions for this class, but the TA will hold office hours during key times, e.g., the week before the midterm and the final week of class. (*This assumes that a TA is assigned to the class. If not, the instructor will inform you of a Plan B for grading the short assignments*).

Requirements and Grading

Short Assignments (4)	15%	Jan. 23, Feb. 6, Mar. 13, Mar. 27
Midterm	25%	February 13, in class
Preliminary outline for data analysis paper	5%	March 22
Data analysis paper	25%	April 6
Final exam	30%	Exam period, April 12-26

N.B. The requirements and grading may have to be revised if a TA is not assigned to the course.

Short Assignments

There will be four short assignments. They include a set of questions designed to test your understanding of basic concepts from lectures and readings and/or to provide experience with particular techniques. Assignments will be available on Brightspace. They should be submitted online through the “Assignments” area of the website, unless you are instructed otherwise. *Due dates may be revised depending on how quickly we progress through the course material.*

Assignments submitted after the due date are subject to late penalties. They must be submitted within one week of the due date (i.e., after one week the late penalty is 100%) so that graded assignments and the answer key can be released to students.

Optional Quizzes

There is a quiz associated with each chapter of the textbook, available at: <https://edge.sagepub.com/johnson8e> (click on the chapter you want and then click on “Quiz”). These are not required and will not be graded, but you may find them useful to assess your level of understanding of the main concepts. They will also be useful to review concepts before exams, although they do not cover all the ideas that you will need to know.

Midterm Exam

In-class, February 13. The exam will test the ability to understand and apply basic concepts, techniques, and methodological issues/strategies. More information on the content and format of the exam will be made available in class prior to the exam. The midterm will cover all of the material raised in lectures and assigned readings up to, and including, the class of February 8.

Final Exam

The final exam will cover material from the entire semester. The final exam period is April 12-26. *Do not make end-of-semester travel plans until you know the date of the final exam.* The Registrar’s office will release the exam schedule on February 1.

Data Analysis Paper (DAP)

Students will work in pairs to perform statistical analysis and write a report explaining their research plan and results. Each student should find his or her own partner and notify me by February 8. Students can only work on their own with special permission.

The DAP is intended to test students' capacity to apply what they have learned by identifying and pursuing a specific research problem.

Basic steps in the process:

1. Decide which **dataset** you want to work with. The main option is to work with the ARDA Cross-National Socio-Economic and Religion dataset, which is a compilation of data from various sources including the UN Human Development Reports and the CIA World Factbook. If you wish to work with another dataset, you should ask the instructor for permission. As you decide on a dataset, keep in mind both your interest in the subject matter of the dataset and the types of analysis that will be available given the levels of measurement of the variables (nominal, ordinal, interval or ratio).
2. Look through the data to identify **variables** that you might use to build a working hypothesis. It will help to start by looking for a *dependent variable* that seems interesting. Once you have your dependent variable, what kinds of other variables can you find in the data that might plausibly be seen to influence your dependent variable? (In other words, can you find some potential causes for your effect?)
3. Formulate a clear **hypothesis**.
4. Identify **control variables**, and **alternative hypotheses**, where appropriate.
5. Look in the scholarly **literature** for theory and research which is relevant to your hypothesis (i.e. research into the variables that affect your *dependent variable*). Do people argue about what causes variation in your dependent variable? If so, what are the rival theories? Which variables are often introduced as key independent or control variables? Where appropriate, go back and reconsider/reformulate what you have for steps 1-4, above. (If you are having trouble getting ideas for steps 3 and 4, you may find it helpful to jump to step 5 and look in the literature for possible hypotheses to test and variables to include.)
6. Think about whether any **measurement issues** might exist with your variables. What do you know about how your variable was measured? What do you not know? How might this matter?
7. Choose the right kind of statistical **analysis** for your variables—and get SPSS to do that analysis for you.
8. **Interpret** the results. Was your working hypothesis supported, or undercut, by what you found? (It's ok if your hypothesis was not supported—discovering that a hypothesis is not supported by the available evidence is a key part of the advancement of knowledge.) What does this mean in terms of theoretical debates? What does this mean in terms of policy recommendations?
9. Write up a brief **report** (2000-3000 words, not including tables and graphs), presenting and explaining your research question, strategy, and results.

Every data analysis paper should have the following components:

1. a brief statement of the research problem (about ½ page)
2. a brief review of relevant scholarly literature (about 1 page)
3. a statement of the working hypothesis or hypotheses (about ¼ page)
4. an explanation of the research design, explicitly identifying independent, dependent, and control variables, some discussion of measurement and sampling issues, and a brief description and justification of the data analysis techniques chosen (3 pages)
5. a discussion of the data analysis results (about 2 ½ pages)
6. a brief discussion of theoretical and policy implications of the results (about ½ page)
7. a brief agenda for further research (about ½ page)

These are guidelines only. You don't have to do things exactly in this order. Particular sections might be a little shorter or a little longer. The most important thing is that you cover each of these different steps and explain each step carefully.

When writing up your report, refer to the assigned readings for March 29 on “Interpreting and Presenting Your Own Results” (you may want to read ahead so that you do not leave the write-up until the last minute). You might also get some ideas about how to organize your report from the structure of other quantitative journal articles you have read, including those on the syllabus (e.g. Segal and Cover; York, Rosa, and Dietz). But keep in mind that for the purposes of this course, you need to make the steps you took in the process more transparent than in most published papers (i.e., just like in high-school math, you need to show your work).

By March 22, each pair of students must hand in a short report (one-page) on their DAP progress to date, outlining the proposed question, working hypothesis, dependent and independent variables (including control variables), the statistical procedure(s) you intend to use, and a preliminary bibliography.

The final version of the DAP is due on April 6.

Deadlines and Late Penalties

Any assignment received after the due date will be subject to a late penalty of 5% per day, unless appropriate written documentation is provided. Please plan your work well ahead of time to avoid this. Note that the four short assignments must be submitted within one week of the due date (i.e. the late penalty is 100% after 7 days).

Heads Up

This is a relatively heavy course with a lot of reading and assignments. It is important that you keep up with concepts along the way—**if you miss key ideas at the beginning, then it will be hard to understand the statistical methods that we cover later. You will be lost and it will not be easy to catch up. If you allow yourself to fall too far behind, failing the course will become a likely outcome.** On the other hand, if you keep up with the readings and the assignments, and ask questions if anything is unclear, you should be able to do well in the course, even if you do not have any background in statistics.

The amount of reading goes down after the first month, but it is replaced by a lot of self-guided work on the data analysis paper. It is your responsibility to manage your time effectively and not leave work to the last minute.

Class Schedule (subject to change)

January 9: Introduction: Why did they make you take this class, i.e., why do methods and statistics matter?

Required:

PSRM, Chapter 1, "Introduction," pp. 1-25, 44. Other pages in chapter optional.

Miller, Laura. 2015. "What Are the Odds? To learn to think critically, take a statistics class." *Slate*, August 31.

http://www.slate.com/articles/life/classes/2015/08/take_a_statistics_and_probability_class_in_college_to_improve_critical_thinking.html

January 11: What does it mean to study politics "scientifically?"

Required:

PSRM. Chapter 2, "The Empirical Approach to Political Science." Pp. 46-71.

Keohane, Robert O. 2009. "Political Science as a Vocation." *PS: Political Science and Politics* 42 (April):359-363.

Recommended:

Brians et al. 2011. Chapter 1, "Research as a Process," pp. 1-15 in *Empirical Political Analysis*, 8th edition. New York: Pearson Longman.

January 16: Hypotheses, Concepts, Variables, Theories

Required:

PSRM, Chapter 3, "Beginning the Research Process," pp. 74-84 (Remainder of the chapter is recommended, but not required.).

PSRM, Chapter 4, "The Building Blocks of Social Scientific Research: Hypotheses, Concepts, and Variables," pp. 104-126.

Recommended:

Van Evera, Stephen. 1997. Chapter 1, "Hypotheses, Laws, and Theories," in *Guide to Methods for Students of Political Science*. Ithaca, NY: Cornell University Press.

Brians et al. 2011. Chapter 2, "Explaining the Political World: Building Theories and Hypotheses," pp. 16-35 in *Empirical Political Analysis*. 8th edition. New York: Pearson Longman.

January 18: Measurement Issues and Strategies

Required:

PSRM Chapter 5, “The Building Blocks of Social Scientific Research: Measurement,” pp. 128-151, 162-3. (Pp. 152-161 recommended but not required).

January 23: Research Design

Assignment #1 due

Required:

PSRM Chapter 6, “Research Design,” pp. 166-209.

January 25: Population and Samples

Required:

PSRM, Chapter 7, “Sampling,” pp. 212-240.

January 30: Univariate Analysis I

Required:

PSRM, Chapter 11, “Making Sense of Data: First Steps,” pp. 348-384.

February 1: Univariate Analysis II / Statistical Inference

Required:

PSRM, Chapter 12, “Statistical Inference,” pp. 388-409.

February 5: Last Day to Withdraw from a Winter Course Without a “W”

February 6: LAB 1: Univariate Analysis

Assignment # 2 due.

February 8: Bivariate Analysis I: Crosstabs

Deadline to inform the instructor of your choice of partner for the Data Analysis Paper.

Required:

PSRM Chapter 13, “Investigating Relationships Between Two Variables,” pp. 412-449.

February 13: Midterm Exam, In Class

February 15: Bivariate Analysis II: Difference of Means Tests

Required:

PSRM Chapter 13, “Investigating Relationships Between Two Variables,” pp. 449-478.

Additional reading TBA.*

February 20 and 22: Study Break (No Classes)

February 27: LAB 2: Bivariate Cross Tabs, T-Test, & Simple ANOVA

March 1: Introduction to Bivariate Regression

Required:

PSRM Chapter 13, "Investigating Relationships Between Two Variables," pp. 478-490.

Segal, Jeffrey A. and Albert D. Cover. 1989. "Ideological Values and the Votes of U.S. Supreme Court Justices." *American Political Science Review* 83(2):557-564.

March 3: Bivariate Regression, continued

Required:

PSRM Chapter 13, "Investigating Relationships Between Two Variables," pp. 490-513.

March 8: TBA / Day to Catch Up on Material

March 12: Last Day to Withdraw from a Winter term course with a "W"

March 13: LAB 3: Bivariate Regression

Assignment #3 due

March 15: Multivariate Analysis I: Multivariate Crosstabs

Required:

PSRM Chapter 14, "Multivariate Analysis," pp. 516-528.

March 20: Multivariate Analysis II: Introduction to Multiple Regression

Required:

PSRM Chapter 14, "Multivariate Analysis," pp. 528-541.

March 22: Multivariate Analysis III: Multiple Regression, continued

Preliminary outline for data analysis paper due.

Required:

PSRM Chapter 14, "Multivariate Analysis," pp. 541-559, 581.

York, Richard, Eugene A. Rosa, and Thomas Dietz. 2003. "Footprints on the Earth: The Environmental Consequences of Modernity." *American Sociological Review* 68:279-300.

March 27: LAB 4: Multiple Regression

Assignment #4 due

March 29: Interpreting and Presenting Your Own Results

Required:

PSRM Chapter 15, “The Research Report,” pp. 584-604.

Van Evera, Stephen. 1997. “How to Write a Paper.” Pp. 123-128 in *Guide to Methods for Students of Political Science*. Ithaca, NY: Cornell University Press.

Kirshner, Jonathan. 1996. “Alfred Hitchcock and the Art of Research.” *PS Political Science and Politics* 29(September):511-513.

N.B. For your DAPs, you might also want to look at PSRM, Chapter 3, Pp. 84-101. This will give you some ideas about how to write your literature review.

April 3: Research Ethics

In-class videos on Tuskegee, Milgram, and/or Zimbardo experiments.

Required:

Neuman, W. Lawrence and Karen Robson. 2015. “Ethics in Social Research.” Pp. 42-63 in *Basics of Social Research: Qualitative and Quantitative Approaches*. Toronto: Pearson.

April 5: Review Session for final exam

April 6: No Class / Data Analysis Paper due.

University Policies, Statements, Guidelines and Resources for Support

Academic Integrity

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.

What does academic integrity mean?

At university we advance knowledge by building on the work of other people. Academic integrity means that we are honest and accurate in creating and communicating all academic products. Acknowledgement of other people’s work must be done in a way that does not leave the reader in any doubt as to whose work it is. Academic integrity means trustworthy conduct

such as not cheating on examinations and not misrepresenting information. It is the student's responsibility to seek assistance to ensure that these standards are met.

How can you achieve academic integrity?

We must all work together to prevent academic dishonesty because it is unfair to honest students. The following are some ways that you can achieve academic integrity; some may not be applicable in all circumstances.

- Make sure you understand Dalhousie's policies on academic integrity (<http://academicintegrity.dal.ca/Policies/>)
- Do not cheat in examinations or write an exam or test for someone else
- Do not falsify data or lab results
- Be sure not to plagiarize, intentionally or unintentionally
- Clearly indicate the sources used in your written or oral work. This includes computer codes/programs, artistic or architectural works, scientific projects, performances, web page designs, graphical representations, diagrams, videos, and images
- Do not use the work of another from the Internet or any other source and submit it as your own
- When you use the ideas of other people (paraphrasing), make sure to acknowledge the source
- Do not submit work that has been completed through collaboration or previously submitted for another assignment without permission from your instructor (These examples should be considered only as a guide and not an exhaustive list.)

Where can you turn for help?

If you are ever unsure about any aspect of your academic work, contact me (or the TA). Other resources:

- Academic Integrity website <http://academicintegrity.dal.ca/>
Links to policies, definitions, online tutorials, tips on citing and paraphrasing
- Writing Centre
(http://www.dal.ca/campus_life/student_services/academic-support/writing-and-study-skills.html)
Assistance with learning to write academic documents, reviewing papers for discipline-specific writing standards, organization, argument, transitions, writing styles and citations
- Dalhousie Libraries Workshops (<http://libraries.dal.ca/>)
Online tutorials, citation guides, Assignment Calculator, RefWorks
- Dalhousie Student Advocacy Service (<http://studentservices.dal.ca/services/advocacy.html>)
Assists students with academic appeals and student discipline procedures.
- Senate Office (<http://senate.dal.ca>)
List of Academic Integrity Officers, discipline flowchart, Senate Discipline Committee

What will happen if an allegation of an academic offence is made against you?

As your instructor, I am required to report every suspected offence. The full process is outlined in the Faculty Discipline Flow Chart

(<http://senate.dal.ca/Files/AIO /AcademicDisciplineProcess Flowchart updated July 2011.pdf>) and includes the following:

- Each Faculty has an Academic Integrity Officer (AIO) who receives allegations from instructors
- Based on the evidence provided, the AIO decides if there is evidence to proceed with the allegation and you will be notified of the process
- If the case proceeds, you will receive a PENDING grade until the matter is resolved
- If you are found guilty of an offence, a penalty will be assigned ranging from a warning, to failure of the assignment or failure of the class, to expulsion from the University. Penalties may also include a notation on your transcript that indicates that you have committed an academic offence.

If you have any questions about academic integrity and plagiarism, please ask.

Student Code of Conduct

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. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution. (read more: https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/student-life-policies/code-of-student-conduct.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. Visit the office in the McCain Building (room 3037) or contact the programs at elders@dal.ca or 902- 494- 6803.

Writing Centre Services

Learning to write well contributes to good marks, completion of degrees and, later, success in the workplace. Now is the time to improve your writing skills. You can visit the Writing Centre for assistance with your assignments. Staff and tutors help you to understand writing expectations and disciplinary conventions. The service is available six days a week.

To book an appointment call 494-1963; email writingcentre@dal.ca; visit the website for online booking at <http://dal.ca/writingcentre>; or drop in to the Killam Library's main floor Learning Commons (G40). (Tutors work in other locations such as on the Sexton Campus, Weldon Law Library, Black Student Advising Centre, and Native Education Centre.)

Visit the Writing Centre's Resource Guide at <http://dal.ca.libguides.com/writingcentre> for online guidance. Finally, see the website for the schedule of seminars on writing issues, including how to integrate source material appropriately into your work (avoid plagiarism).

Other Learning and Support Resources

General Academic Support – Advising: https://www.dal.ca/campus_life/academic-support/advising.html

Libraries: <http://libraries.dal.ca>

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

Statement on Accommodation

Students may request accommodation as a result of barriers experienced related to disability, religious obligation, or any characteristic protected under Canadian human rights legislation.

Students who require academic accommodation for either classroom participation or the writing of tests and exams should make their request to the Advising and Access Services Centre (AASC) prior to or at the outset of the regular academic year. Please visit www.dal.ca/access for more information and to obtain the Request for Accommodation form.

A note taker may be required as part of a student's accommodation. There is an honorarium of \$75/course/term (with some exceptions). If you are interested, please contact AASC at 902-494-2836 for more information or send an email to notetaking@dal.ca

Please note that your classroom may contain specialized accessible furniture and equipment. It is important that these items remain in the classroom, untouched, so that students who require their usage will be able to fully participate in the class.