

## **Department of Political Science**

### **POLI 3492**

#### **Political Inquiry I**

Winter 2013

Tuesday, 11h35-12h55  
Thursday, 11h35-12h55  
Mona Campbell Building 1108

Instructor: Jean-Christophe Boucher  
Office: Henry Hicks A355  
Hours: Tuesday 16:00-17:30 pm,  
Thursday 16:00-17:30 or by appointment  
Email: jc.boucher@dal.ca  
Tel: 494-7101

#### **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 working assumptions behind statistical analyses, and gain practice with those methods to answer specific research questions using the statistical software package STATA.

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 generally the case in all courses, but particularly so in this course, given the nature of the subject matter.)

Four of the classes will be replaced by lab sessions (see “Weekly Themes and Readings” below), where students will work semi-independently on small assignments using STATA software.

### **Website**

The course website on the Blackboard Learn System (Bblearn) can be accessed through my.dal.ca. It includes, among other resources, a digital copy of the syllabus, updates to any changes to the syllabus throughout the semester. If you have a technical problem with the course website, email the Help Desk: [helpdesk@dal.ca](mailto:helpdesk@dal.ca).

### **Readings**

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

Keith Archer and Loleen Berdahl, 2011. *Explorations. Conducting Empirical Research in Canadian Political Science*. 2<sup>nd</sup> Edition. Don Mills: Oxford University Press.

### **Suggested readings:**

For motivated students, there are many good books on the use of quantitative analysis, applied to Political Science. Here are a couple of suggestions:

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

Gary Goertz. 2006. *Social Science Concepts. A User's Guide*. Princeton: Princeton University Press.

### **Datasets**

We will work with datasets, including:

- British Election Study 2001 (selected data): [http://psrm.cqpress.com/data/BES\\_Data.zip](http://psrm.cqpress.com/data/BES_Data.zip)
- Canadian Election Study 2008: [http://www.queensu.ca/cora/\\_files/\\_CES/CES2008.sav.zip](http://www.queensu.ca/cora/_files/_CES/CES2008.sav.zip)
- ARDA Cross-National Socio-Economic and Religion Data, drawing on UN Human Development Reports and Central Intelligence Agency World Factbook: <http://www.thearda.com/Archive/Files/Descriptions/ECON2005.asp>

## Requirements and Grading

Midterm	30%	March 6 <sup>th</sup> , 2013
Paper Outline (Lit. Review and hypothesis)	15%	February 12 <sup>th</sup> , 2013
Research design	20%	March 13 <sup>th</sup> , 2013
Final paper	35%	April 5 <sup>th</sup> , 2013

### *Midterm Exam*

Take-home, February 14<sup>th</sup>. 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. Students will be responsible for all of the ideas and issues raised in lectures and assigned readings, up until the exam date.

### *Paper outline*

To hand-in on February 20<sup>th</sup>. This paper outline should present the first step of any research. It should include:

1. a very 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)

### *Research design*

To hand-in, March 13<sup>th</sup>. Your research design should specify the method and the empirical data you will use for your final paper. It should include 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)

### *Final paper*

Students will perform statistical analysis and write a report explaining their research plan and results.

The paper is intended to test students' capacity to apply what they have learned by identifying and pursuing a specific research problem. Students will 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 special permission.

Basic steps in the process:

1. Decide which **dataset** you want to work with. (In this case, you will be working in almost all cases with ARDA.) 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 might 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. 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.
6. Think about whether there might be any **measurement issues** 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 STATA 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** (3000-4000 words, not including tables and graphs), presenting and explaining your research question, strategy, and results.

Every paper should have the following components:

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.

The final version of your paper is due on April 5<sup>th</sup>.

### **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 such as a doctor's note is provided. Please plan your work well ahead of time to avoid this.

### **Plagiarism and Academic Integrity**

Plagiarism is a serious violation of academic ethics. All students in this class are to read and understand the policies on plagiarism and academic honesty referenced in the Policies and Student Resources sections of the [plagiarism.dal.ca](http://plagiarism.dal.ca) website. Ignorance of such policies is no excuse for violations.

To ensure that you understand what plagiarism is, I suggest you take the following online quiz: <http://www.bc.edu/schools/cas/polisci/integrity/quiz.html> . You might find some surprises.

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

### **OSAA Syllabus Statement on Accommodation**

Students may request accommodation as a result of barriers related to disability, religious obligation, or any characteristic under the Nova Scotia Human Rights Act. 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 Center (AASC) prior to or at the outset of the regular academic year. Please visit [www.dal.ca/access](http://www.dal.ca/access) for more information and to obtain the Request for Accommodation – Form A.

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 494-2836 for more information.

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 participate in the class.

### **Lab schedule**

Group 1: Wednesdays            15h30 to 18h30 – LSC 200

Group 2: Wednesdays            15h30 to 18h30 – Rowe 3080

Group 3: Thursdays            8h30 to 11h30 – Rowe 3080

## Course schedule

<b>Week 1</b>	
January 8 <sup>th</sup> , 2013	<b>Introduction</b>
January 10 <sup>th</sup> , 2013	<p><b>The Scientific study of political science</b></p> <ul style="list-style-type: none"> <li>• Archer and Berdahl, Chap. 1</li> <li>• Keohane, Robert O. 2009. "Political Science as a Vocation." <i>PS: Political Science and Politics</i> 42 (April):359-363.</li> </ul>

<b>Week 2</b>	
January 15 <sup>th</sup> , 2013	<p><b>Hypotheses, Concepts, Variables, Theories.</b></p> <ul style="list-style-type: none"> <li>• Archer and Berdahl, Chap. 3</li> <li>• Van Evera, Stephen. 1997. Chapter 1, "Hypotheses, Laws, and Theories," in <i>Guide to Methods for Students of Political Science</i>. Ithaca, NY: Cornell University Press. (In reserve)</li> <li>• Mannheim, Jarol B. et al. 2008. Chapter 2, "Theory Building: Concepts and Hypotheses in Political Research," pp. 15-34 in <i>Empirical Political Analysis: Quantitative and Qualitative Research Methods</i>, seventh edition. New York: Pearson Longman.</li> </ul>
January 17 <sup>th</sup> , 2013	<p><b>Measurement Issues and Strategies</b></p> <ul style="list-style-type: none"> <li>• Archer and Berdahl, Chap. 4</li> <li>• Przeworski, Adam and Henry Teune. 1966-67. "Equivalence in Cross-National Research." <i>Public Opinion Quarterly</i> 30(4):551-568. (Focus on the overall argument rather than the details of the procedures they outline.)</li> </ul>

<b>Week 3</b>	
January 22 <sup>nd</sup> , 2013	<b>Research Designs</b> <ul style="list-style-type: none"> <li>• Archer and Berdahl, Chap. 6</li> </ul>
January 24 <sup>th</sup> , 2013	<b>Populations, samples, and case selection.</b> <ul style="list-style-type: none"> <li>• Archer and Berdahl, Chap. 8</li> </ul>

<b>Week 4</b>	
January 29 <sup>th</sup> , 2013	*** TBD ***
January 31 <sup>st</sup> , 2013	*** TBD ***

<b>Week 5</b>	
February 5 <sup>th</sup> , 2013	<b>Univariate Analysis I: Introduction</b> <ul style="list-style-type: none"> <li>• Archer and Berdahl, Chap. 15 - 16</li> </ul>
February 7 <sup>th</sup> , 2013	<b>Bivariate linear regression I</b>

<b>Week 6</b>	
February 12 <sup>th</sup> , 2013	<b>Bivariate linear regressions II</b> <b>Submit paper outline</b>
February 14 <sup>th</sup> , 2013	<b>Bivariate linear regression III</b>

<b>Week 7</b>	
February 20 <sup>th</sup> , 2013	<b>Multivariate linear regression I</b>
February 21 <sup>st</sup> , 2013	<b>Multivariate linear regression II</b>

<b>Week 8</b>	
February 26 <sup>th</sup> , 2013	<b>*** March Break ***</b>
February 28 <sup>th</sup> , 2013	

<b>Week 9</b> <b>Lab 1</b> <b>Introduction to STATA 12</b>	
March 6 <sup>th</sup> , 2013	<b>Group 1 &amp; 2</b> <b>submit take-home</b>
March 7 <sup>th</sup> , 2013	<b>Group 3</b>



<b>Week 10</b> <b>Lab 2</b> <b>Chi-square and measures of association</b>	
March 13 <sup>th</sup> , 2013	<b>Group 1 &amp; 2</b> <b>Submit Research design</b>
March 14 <sup>th</sup> , 2013	<b>Group 3</b>

<b>Week 11</b> <b>Lab 3</b> <b>Linear regressions</b>	
March 20 <sup>th</sup> , 2013	<b>Group 1 &amp; 2</b>
March 21 <sup>th</sup> , 2013	<b>Group 3</b>

<b>Week 12</b> <b>Lab 4</b> <b>Missing data, outliers, and Interpreting STATA output</b>	
March 27 <sup>th</sup> , 2013	<b>Group 1 &amp; 2</b>
March 28 <sup>th</sup> , 2013	<b>Group 3</b>

**Week 13**  
**Lab 5**  
**Finish statistical analysis for paper**

April 3 <sup>rd</sup> , 2013	<b>Group 1 &amp; 2</b>
April 4 <sup>th</sup> ,	<b>Group 3</b>