

**Political Science Research Methods  
Political Science 210**

**Fall 2022**

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**Instructor:** Colin Scott

**Email:** colin.scott2@mcgill.ca

**Lectures:**

Tuesdays & Thursdays: 4:05pm to 5:25pm,  
STBIO S1/4.

**Data Labs:**

All students must register for a lab slot through Minerva and attend the same lab every week. Labs are held in LEA 212 and begin during the third week of the semester.

**Instructor Office Hours:**

Tuesdays & Thursdays: 1:30pm to 2:30pm  
(LEA 315, September 6<sup>th</sup> to December 8<sup>th</sup>) or  
by appointment (Zoom).

**TA Office Hours:**

**TBA.**

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**Overview**

This course is an introduction to political science research methods. Students will learn how to develop research questions and test hypotheses; critically evaluate different qualitative and quantitative methodologies for collecting data; and, learn the basics of data analysis. Students will be introduced to quantitative data science through hands-on introductory lab sessions in *R* – a free, open-source software. The skills developed in this course will help students prepare for advanced social science courses and strengthen analytical skills that are practical and marketable inside and outside of university.

**Course Description**

This course is about thinking scientifically about our social and political world. Topics explored in this course include the logic of the scientific method; the processes behind the production, consumption, and communication of scientific research; the measurement of social and political concepts; qualitative and quantitative research methodologies; and, the basic fundamentals of statistical inference. The methods studied in the course include case studies and comparative analyses; interviews, focus groups, and participant observations; surveys; and, various types of experiments. We will walk through these methodologies while discussing their strengths as well as their limitations. In doing so, we will pay attention to the many challenges and considerations involved in conducting solid social science research, including research ethics and the practicalities of collecting accurate, valid, and reliable data on social and political events. We will also examine the many challenges (and opportunities!) for causal inference in the social sciences. Examples will

be drawn from a range of political science subfields including, but not limited to, political behaviour, public opinion, and Canadian and comparative politics.

Note: Students who have previously taken POLI 311 cannot take this course. This course now serves as a prerequisite for POLI 311 and the undergraduate honors program in political science.

### **Course Requirements**

#### **Assessment:**

Exam #1	20%
Exam #2	20%
Final Project	25% (5% for proposal; 20% final paper)
Lab Assignments (x4)	20% (total; 5% each)
Quizzes (x2)	10% (total; 5% each)
In-class polling participation	5%

#### **Assigned Readings and Supplementary Material**

Most assigned readings are found in the textbook:

Loleen Berdahl & Jason Roy (2021) *Explorations: Conducting Empirical Research in Canadian Political Science* (4<sup>th</sup> edition). Oxford University Press.

Students can purchase a print version of the textbook through the McGill bookstore's website (<https://lejames.ca/textbooks>). An electronic version of the textbook can also be purchased from the publisher via VitalSource ([vitalsource.com](https://vitalsource.com)). Additional readings (see below) will be posted to MyCourses. Older editions of the textbook are not recommended, but if you do acquire an older version, it is your responsibility to be aware of any changes in content.

You are expected to devote a reasonable amount of time each day to keeping up with the material. The amount of reading is manageable, but it is not negligible. Listen *actively* during lectures and labs, take notes, and ask questions. Setting daily and weekly goals and reminders, participating regularly in office hours, keeping up to date with course announcements made on MyCourses, and engaging in the course's community workspace on Slack (see below) will help you manage your time while staying organized.

To complement the textbook, additional readings and supplementary materials will be posted to MyCourses. Supplementary material might include a relevant scholarly paper, media coverage on a topic related to the course, or additional resources for data analysis using *R*. Only the readings listed in the course schedule (below) will be evaluated on quizzes or exams. The supplementary material, however, will be helpful in thinking through course-related concepts and learning *R*.

#### **Data Labs**

In addition to the assigned readings and lecture materials, you will be introduced to quantitative data analysis using the statistical software *R*, a free and open-source program that is a valuable tool for working with quantitative data in academic and non-academic settings. We will use *R* through an interface called *RStudio*. Students must install both *R* and *RStudio* on their own computers before their first lab session (see Lab Guide 1). Alternatively, students must locate an on-campus computer equipped with *R* that they can use for their course work (e.g., the McGill Library's Data Lab).

Lab sessions begin during the third week of class and will be held in LEA 212. Students may bring their own computers or use the computers provided. All students must register for a lab slot through Minerva and attend the same lab every week. A Lab Folder will be posted to MyCourses containing the week's lab activity. This folder will all the lab guides, datasets, and example code for your analyses.

### **Class Participation / In-Class Polling**

McGill uses a web-based polling system called Slido, which is freely available to students. The purpose of this software is to facilitate active participation in lectures by creating opportunities to discuss or clarify course concepts. Students can use their own personal devices (i.e., laptop, tablet, or smartphone) to respond to polling questions that will be posted during lectures. A percentage of your final grade (5%) is based on your participation in these polls (not whether the answers are correct, just whether you participate regularly and respectfully). You are allowed two absences without any penalty (including health-related absences). You do not need to inform the instructor about these absences. If you cannot use a phone, tablet, or laptop for in-class polling please contact the instructor as soon as possible so that an alternative arrangement can be made.

To use the polling software, you should come to class with your device charged and connected to the Internet. To participate, you will be provided with a scannable QR code or a link to the online poll during each lecture. You will need to log in to Slido using your McGill username and password to be credited with participating in in-class polling. Please note that logging into another students' polling account and participating as someone else constitutes academic misconduct and is a serious violation of university policy.

To maintain a safe and respectful classroom environment, please make sure that any polling responses you submit are appropriate and relevant to the question asked. Note that your poll responses are not anonymous and are identifiable to the instructor.

### **Lab Assignments**

Throughout the semester, you will be responsible for 4 data analysis assignments worth 5% each. Like any skill, data analysis requires practice. The purpose of these assignments is to apply what you learn in the data labs to develop your analytical skills. For each assignment, you will usually submit two files through MyCourses: (i) your *R* code (also known as a "script") and (ii) your

assignment answers (in a .doc or .pdf file only). These assignments are graded as follows: Incomplete/Unsatisfactory (0-2 points); Satisfactory (3 points); and, Excellent (4-5 points). Answer keys will be posted once submission folders close.

Late assignments are not accepted. Regardless of whether the deadline is missed by a few seconds, a few hours, or a few days, you must produce university-approved documentation within five days of the submission deadline to receive accommodation for a missed assignment. If you miss an assignment, contact the instructor as soon as possible. All submission folders for course assessments (i.e., quizzes, assignments) are programmed to close at a very specific time. Technology-related issues (e.g., slow internet, trouble accessing MyCourses) are not acceptable excuses for missing a deadline.

### **Reading Quizzes**

There will be two quizzes based on the assigned readings prior to each exam. Each quiz is worth 5% of your final grade. Quiz content will be drawn primarily from the textbook but may also include important concepts discussed from the lectures, lab sessions, or assigned readings. Quizzes will appear on MyCourses on the scheduled date (see course schedule) and must be completed by the deadline. The reading quizzes are open book. You may use your textbook or any course notes, but once you start the quiz you have 30 minutes to submit it.

Please note that quizzes cannot be submitted after the deadline. Regardless of whether the deadline is missed by a few seconds, a few hours, or a few days, you must produce university-approved documentation within five days to receive accommodation for a missed quiz. If you miss a quiz, contact the instructor as soon as possible. All submission folders for course assessments (i.e., quizzes, assignments) are programmed to close at a very specific time. Technology-related issues (e.g., slow internet, trouble accessing MyCourses) are not acceptable excuses for missing a deadline.

### **Exams**

There is no formal, university-scheduled final exam in this course. Instead, you will have two exams that will be taken online through MyCourses. The exams are open book, meaning you can use your textbook or course notes. Once exams are posted, they can be submitted any time before the deadline. Once you begin your exam, you have 2 hours to complete it. Suggested readings that appear on MyCourses but do not appear in the course schedule below will not be tested (though they will help you in your data analyses and preparation).

Missing an exam without an approved excuse, as well as failure to submit your exam before the deadline, will result in a grade of 0%. In case of illness or emergency, official documentation indicating why you were unable to take the assessment at the scheduled time must be presented to the instructor upon returning to your studies.

### **Final Project**

As we move through the course, think carefully about how the different approaches to designing social science research that we discuss can (and cannot) be used to answer an empirical political science research question that is important to you. For example, does the presence of natural resources help or hurt democracy? Is there a gender gap in political interest or knowledge? Do foreign-born citizens participate in the political process at comparable rates as native-born citizens? What explains support for far right or Eurosceptic political parties? How do people define “democracy”? Why do some countries have more equal gender representation in their national legislatures? Does the type of electoral system influence voter turnout?

These are just some examples, and you may come up with your own empirical research question that fits with your interests, provided they are reasonably related to politics and society. It would be wise to consult with the instructor or your assigned teaching assistant about your ideas and interests during office hours, over email, or by making an individual appointment.

The final project is divided into two parts. Your task is to design a study that demonstrates your ability to apply course concepts to an empirical research question that may be broadly of interest to political scientists. You will develop a one-page preliminary research proposal using the worksheet provided (5%) and submit a final paper (20%) that builds on your proposal and incorporates the feedback you received. Your research proposal is due part-way through the semester and your final paper is due at the end of the course. More detailed instructions on the final project, including due dates and specific tasks, will be provided during lectures.

## **Online Tools**

### *MyCourses Website*

All course materials including slides, lab guides, datasets, assignments, and supplementary materials will be posted to MyCourses. You are required to check the course website regularly (several times per week and on days where meetings are to be scheduled). In addition to the lecture materials, *lab guides* will be posted to MyCourses that will help you navigate R for your data analysis assignments and summarize what we cover in the weekly data tutorials. You will submit all your assessments (i.e., exams, quizzes, assignments) through MyCourses.

### *Slack*

Slack is a channel-based messaging platform. While the primary resources for the course (i.e., lecture and lab materials, assignments) will be shared through MyCourses, our Slack channel will serve as a place for continued discussions about course topics such as the lectures, assigned readings, homework exercises, and any other course-related things you want to share. I encourage you to use this platform as a way to communicate with myself and other students in the class. Here, you can ask or answer questions and share resources related to conducting social science research. You can also use Slack to communicate with me (I am also reachable by e-mail) and with your fellow students. You will be invited to the Poli 210 Slack Channel through your McGill email. Any non-McGill emails will be removed from the channel.

## Course Policies

**Attendance.** You are expected to attend all lecture and lab sessions in person. Lectures or labs will not be recorded.

**Communication.** Good communication is integral to a constructive learning environment. Please do not hesitate to reach out to your instructor or your TA if you have any questions or doubts. You can get in touch with us over email or through our course Slack channel (as a direct message, or by tagging your instructor and/or TAs with @ in a channel). Please use your McGill University email for all correspondences. You should expect a response to your messages within two business days.

**Copyright.** Instructor-generated course materials (e.g., handouts, notes, summaries, exam questions) are protected by law and may not be copied or distributed in any form or in any medium without explicit permission of the instructor. Note that copyright infringements can be subject to follow-up by the University under the Code of Student Conduct and Disciplinary Procedures.

**Office Hours.** Regular office hours will be held throughout the course as well as by appointment. Regular office hours with the instructor will be held before lectures on Tuesdays and Thursdays between 1:30pm and 2:30pm in LEA 315, beginning Tuesday, September 6<sup>th</sup> and continuing until Thursday, December 8<sup>th</sup>. **Your TAs will also hold weekly office hours (TBA; schedule will be posted on MyCourses).** Additional office hours will be scheduled around important deadlines. If the posted times are not convenient for you, please e-mail us to schedule an appointment.

You do not need an appointment to come to office hours; they are drop-in on a first-come-first-serve basis. During office hours, we can meet individually or as a group to discuss general course-related topics, including lecture materials, assignments (especially your final project), lab tutorials, how to use R, or anything else related to the course that you may be wondering about.

**Deadlines.** All evaluated work must be submitted before the deadline. Deadlines will be strictly followed. Submissions folders are programmed to close precisely at the stated time. Late submissions are generally not accepted, except for the final project. For each component of your final project, you will receive a 3% penalty per day (including weekends) and your work will be evaluated proportionately to the extra time you have had to complete the assignment.

If you miss a deadline, please understand that the usual university-approved documentation is required before I can grant you special consideration. Also note that special consideration does not extend to last minute technology trouble (e.g., slow internet connection, trouble with MyCourses, etc.). This applies to submissions of assignments, exams, and quizzes. Do not wait until the last minute to submit your work.

**Technology.** This is an interactive course that relies heavily on different technology. I appreciate that much of what we are doing may be new. That said, I assume that you are able to install R and RStudio, use in-class polling, and navigate MyCourses and Slack.

If you have trouble doing any of this, then your first step is to search for a solution on the Internet. Particularly when it comes to R, there are excellent resources available and your questions have almost always been answered already by somebody else in an online forum like StackOverflow or Cross-Validated. Students having trouble with MyCourses or Slido should contact McGill's IT Support Desk if they are not able to resolve the issue on their own. After spending a reasonable amount of time troubleshooting a problem on your own, please contact your TA or the instructor for help. Troubleshooting problems is as much a part of the process of learning new technology as executing a command. With that in mind, please do not hesitate to speak to me or your TAs regarding any questions or issues you encounter.

**Accommodations.** Please come speak to me as soon as possible if you are in need of special requirements or accommodations, for any reason.

**Language.** English is the language of instruction during lectures and labs. Students are welcome to submit graded work or come with questions to the instructor's office hours in English or French.

**Etiquette.** I expect students to help build a professional and respectful learning environment. We rely heavily on technology in this course to communicate – disruptions caused to this environment (e.g., cellphones in class; browsing social media; watching videos) will not be tolerated.

**Group work.** While I encourage you to build a collaborative environment for your study, all students must write their own R code and draft their own assignments. It is not acceptable to copy someone else's work, whether writing or coding, regardless of whether you are working collaboratively or not. All assessment materials will be examined for evidence of cheating and/or plagiarism and suspected cases will be referred to the university for disciplinary review.

### **Additional University Policies**

In accord with McGill University's Charter of Students' Rights, students have the right to submit in English or in French any written work that is to be graded.

McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures. Please refer to McGill's policy on Academic Integrity and Code of Conduct: <http://www.mcgill.ca/deanofstudents/plagiarism>.

### Course Schedule

Course Theme	Date	Lecture Topic	Assigned Readings	Notes
1. Foundations of empirical political science research	Thursday, September 1	Introductions and course overview  1.1 Empirical vs normative political analysis		
	Tuesday, September 6	1.2 Political “science”	Explorations, ch. 1	Bonus assignment: POLI 210 Class Survey
	Thursday, September 8	1.3 Research ethics and the scientific process	Explorations, ch. 3	
	Tuesday, September 13	1.4 Knowledge dissemination and scientific communication	Explorations, ch. 2 & 14	Add/Drop Deadline.  Labs begin this week. Lab 1
	Thursday, September 15	Library resources for political science undergraduates		Guest speaker: Sandy Hervieux ( <a href="mailto:sandy.hervieux@mcgill.ca">sandy.hervieux@mcgill.ca</a> ), McGill University’s Political Science Liaison Librarian.
2. Research design & causal inference	Tuesday, September 20	2.1 Formulating questions, building theories, and testing hypotheses		Deadline to withdraw with refund. Lab 2
	Thursday, September 22	2.2 Operationalizing concepts and measuring variables	Explorations, ch. 4	
	Tuesday, September 27	2.3 Observational and experimental data, and the fundamental	Enos	Lab 3



		problem of causal inference	Explorations, ch. 12, pp. 247-260	
	Thursdays, September 29	2.4 Specifying theoretical mechanisms	Why do liberals like lattes?	R Assignment 1 (5%) due Sunday, 11:59pm
	Tuesday, October 4	2.5 Sampling I	Explorations, ch. 5	Lab 4
	Thursday, October 6	2.5 Sampling II	Geddes (1990), skim but focus on pp. 131-141 & 148-149	Reading Quiz #1 (5%) closes at start of class Thursday
	Tuesday, October 11	NO LECTURE		Fall Reading Break
	Thursday, October 13	NO LECTURE		Make-up day. Classes follow Monday's schedule
	**Friday, October 14	Review session		Make-up day. Classes follow Tuesday's schedule
	Tuesday, October 18	Exam 1 opens at 9am and closes at 5:30pm		Exam 1 (20%) No labs this week
3. Common research methodologies	Thursday, October 20	3.1 Case studies and the comparative method	Explorations, ch. 10	
	Tuesday, October 25	3.2 Analyzing documents and texts	Explorations, ch. 6	Deadline to withdraw without refund Lab 5
	Thursday, October 27	3.3 Interviews, focus groups, and participant observations	Explorations, ch. 7	R Assignment 2 (5%) Sunday at 11:59pm

	Tuesday, November 1	3.4 Survey methodology	Explorations, ch. 8	Lab 6
	Thursday, November 3	3.5 Experimental design	Explorations, ch. 9	
4. Data analysis	Tuesday, November 8	4.1 Qualitative analysis	Explorations, ch. 11	Lab 7  Guest speaker: Dr. Audrey Gagnon (TBC) (University of Oslo)  Qual Analysis (Assignment 3; 5%) due Sunday at 11:59pm
	Thursday, November 10	No lecture – Extra office hours throughout the day; assignment preparation sessions during class time.		First part of Final Project (5%) due Sunday at 11:59pm
	Tuesday, November 15	4.2 Quantitative analysis I: Descriptive statistics	Explorations, ch. 12, pp. 247-260 (review)	Lab 8
	Thursday, November 17	4.3 Quantitative analysis II: Measures of association	Explorations, ch. 12, pp. 261-282	
	Tuesday, November 22	4.4 Quantitative analysis III: Inferential statistics	Explorations, ch. 13	Lab 9
	Thursday, November 24	4.5 Quantitative analysis IV: Introducing the regression framework		Reading Quiz 2 (5%) closes at start of class Thursday.  R Assignment 4 (5%) due Sunday at 11:59pm

	Tuesday, November 29	Review session		No labs this week
	Thursday, December 1	Exam #2 opens at 9am and closes at 5:30pm		Second Exam (20%)
	December 5 <sup>th</sup>			Second part of Final Project due by 11:59pm