84-265 Political Science Research Methods – Spring 2021 Syllabus

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Class: Mondays and Wednesdays 4:00-5:20pm, BH A51 or on Zoom

Office Hours: by appointment on Zoom

In this course, students will learn the fundamentals of how to evaluate, design, and conduct modern social science research. In particular, the course is divided into two main parts. Part one introduces students to the core challenges of posing research questions, drawing causal inferences, engaging with the literature, measuring concepts, and selecting cases or observations. The second part builds on this foundation and delves into a number of the leading methods and strategies for conducting research in the social sciences, including case studies, interviews, surveys, regression analysis, and experiments of various kinds.

Throughout the course, the focus will be twofold. First, students will build their research toolkit, gaining an understanding of both (1) general principles of sound research design, and (2) specific research strategies and their relative strengths and weaknesses. Second, students will apply their skills toward a group research project based on a class-wide research question. Each group must tackle this question using a different research strategy, producing a research presentation and paper at the end of the semester which communicates their results. In this sense, students will gain both a thorough conceptual *and* applied knowledge of fundamental issues in the design and execution of social science research – something applicable not only to their time at CMU but to any effort to investigate difficult empirical questions in their future careers.

Course Materials:

In an effort to provide you with both a structured foundation and a diverse range of perspectives, the course relies on both a textbook that is required for purchase plus a variety of journal articles and book excerpts that will be provided for you. The required textbook is listed below (available on Amazon in either hard copy or digital versions):

-*The Fundamentals of Political Science Research, 3rd Ed*, by Kellstedt and Whitten, 2018 (henceforth FPSR)

Meanwhile, the following books are recommended but not required (we will read excerpts from them which I will provide to you, but they are classics of research design which you may want to consult more broadly as you develop your project):

-*Designing Social Inquiry*, by King, Keohane, and Verba, 1994

-*The Craft of Research*, 4th Ed, by Booth, Williams, and Colomb, 2016

You will also see readings marked "*Recommended*" in the syllabus. These are optional readings that will allow you to gain more exposure to a specific topic; they are not required but you are free to bring them up in class and ask me about any of them. Occasionally, I may bring them up myself with a brief explanation so that we can discuss them if they are especially relevant.

For data analysis, we will use the popular open-source computing program R. You can download R for free from www.r-project.org. R is widely used for statistics and data analysis in government, the private sector, and academia, combining the ability to run conventional statistical analyses with strong graphing (as well as scraping and programming) capabilities. If you want to supplement the exposure to R that you get in the class, there are many great resources online. In particular, I would recommend the following:

-*R for Data Science*, by Grolemund and Hadley-Wickham (a comprehensive, general intro to R)
        -Link: https://r4ds.had.co.nz
-*Quantitative Politics with R*, by Larsen and Fazekas (a streamlined intro for political scientists)
        -Link: http://qpolr.com

We will be working with R through RStudio, which is the premium "front end" and user interface for the program. RStudio offers a more intuitive and user-friendly experience as well as a number of other nice features for users. It is available here: https://rstudio.com

Note on Statistical Training:

This course is chiefly an attempt to provide you with a strong foundation in research design and an overview of the research methods used in the social sciences. It includes a substantial statistical component, as this is an essential part of the modern social science research toolkit (and will likely be used in many of your group research projects). This component includes exposure to some of the central concepts of descriptive statistics, bivariate association, and linear regression, as well as experience with the software package R, which offers a powerful but accessible platform for you to practice your skills. That said, it is not chiefly a stats class but a foundation for you to build on. Students can gain more stats training from many places, from mass open online courses (MOOCs) to statistically-oriented CMU library workshops to individual meetings with IPS (or other) faculty for more targeted help. A nice applied resource is *An R Companion to Political Analysis*, which is meant to accompany an undergraduate political science research methods textbook that is similar to the one we are using in class, and there are many other R-oriented tutorials and resources online (including the two free online textbooks listed above) that can give you an applied look at different methods with enough intuition to make them useful. In sum, you have a variety of options if you want to gain more statistical training; don't hesitate to use them if needed.

Course Evaluation:

Research Memos:
This is both a course on research design as well as a chance to begin gaining research experience. One of the key assignments is a series of <u>four short research memos,</u> in which you apply what we learn in class toward developing a major component of your group research project. In particular, the four memos cover the (1) research question, (2) literature review, (3) research design, and (4)

preliminary results of your group project. Each memo is worth 10% of your final grade for a total of 40% – you should approach them with care.

Final Research Paper:
The objective of these memos is to work toward the development of your group research project, which serves as the final paper in the course. The paper is based on a class-wide research question on a political topic – this spring it is on **political participation on university campuses**. Why do some college students take part in political life, while others do not? What accounts for variation in their degree of political participation or engagement? Each group must investigate this question using a different research approach – such as fielding a survey, conducting interviews, running an experiment, doing case studies, or examining existing observational data – and communicate their findings in their final research paper. This paper is due on Monday, May 17th by 6pm and is worth 25% of your final grade. It must be a minimum of 15 pages, double-spaced (12-point Times New Roman font, with 1-inch margins and Chicago-style citations). The paper must have the following elements: title and abstract, research question and description of its importance, literature review, theory/argument/hypotheses, research design, empirical analysis or results, and a brief discussion and conclusion. In essence, the paper should build on all of your memos and the original research you conduct to produce a coherent whole.

Final Presentations:
During the final week of the semester (May 3-7), each group will present its findings to the class. These presentations will last approximately 20 minutes (with 5 additional minutes for Q&A) and comprise 5% of your final grade. They are meant to emulate the format of a conference panel and give you practice sharing your work and answering questions about it. They should be supported by some type of visual aid (e.g., PPT, Prezi, Beamer, etc.), which you must submit on Canvas prior to your presentation.

Problem Sets:
The ability to interpret and analyze data is an increasingly critical part of the social sciences today. Accordingly, you will be assigned two problem sets in order to help you better understand some of the basic statistical methods that are used in the field. The first will focus on descriptive statistics and visualization and the second will focus on multivariate regression analysis. Each problem set will be worth 10% of your final grade. You may discuss these assignments with other students, but you must write and submit your own work.

Attendance and Participation:
While research methods courses often require somewhat of a traditional lecture format, active and thoughtful participation by students is fundamental to your (and our general) success this semester. In terms of participation, students should carefully read the assigned readings prior to each course meeting and come ready to discuss them, whether in person or via Zoom. In terms of attendance, students are allowed two free absences, but will be penalized for (unexcused) absences after that. The attendance and participation policy is also designed to be flexible and accommodate different types of learners. In particular, students who do not attend a class either in-person or via Zoom can earn attendance and participation credit by watching the lecture and posting a brief, one-paragraph reaction on our Canvas discussion board within the next week. In these posts, you can simply share

a thought or reaction to the lecture (something that made sense, something you didn't fully grasp, a question you had, a new idea or thought that struck you, etc.).

Extra Credit:
Students will also have the opportunity to receive extra credit for attending – and learning from – relevant talks or workshops during the semester. Students can receive credit for attending up to 5 such events, with each one adding an additional half point to their overall research memos grade. To receive credit, students must attend the talk and then post a one-paragraph reaction on Canvas. In your post, you should briefly summarize the event and then discuss what you learned. This may include any connections it had to course material as well as any thoughts or reactions that you had to it (something that made sense, something you didn't fully grasp, a question you had, a new idea or thought that struck you, etc.). I may ask those who attend to share what they learned in class.

Eligible events include research talks by faculty in IPS or other social science fields at CMU (e.g., Psych, SDS, Heinz/Public Policy, etc.), as well as CMU library workshops (only those related to the social sciences, not those specific to STEM or humanities). The list of library workshops this spring is available at: http://www.library.cmu.edu/workshops. If you are unsure about whether an event is eligible for extra credit, contact me before attending for an answer.

Research memos (4)	40% (10% each)
Problem sets (2)	20% (10% each)
Final presentation	5%
Final paper	25%
Attendance/Participation	10%
Total	100%

Grading Policies

All assignments have due dates indicated on the syllabus. In general, submitting assignments on time helps me provide feedback in a more timely and efficient manner (this is especially crucial with the problem sets, as I generally won't be able to go over them until they are all submitted). However, I do know that sometimes life happens. If you cannot submit an assignment on time, the default will be that you will be eligible for 90% of the grade the first 48 hours that the assignment is late. If you have to submit beyond 48 hours past a due date, please contact me as soon as possible so we can make arrangements.

Any grievances you may have with a grade must be submitted in writing to the instructor within one week of grading and will lead if appropriate to a regrading of your assignment. Do note that your grade may be raised or lowered in this process. Final grades will be based on the following grade scale, with rounding at instructor discretion:

Undergraduate Students Grading Scale:
A = 90-100	B = 80-89.9	C = 70-79.9
D = 60-69.9	R = <60	

Expectations for In-Person Participation:

In order to attend class in person, I expect you will abide by all behaviors indicated in **A Tartan's Responsibility**, including any timely updates based on the current conditions. In terms of specific expectations for in-person students, this includes:

o entering the classroom via the designated ingress route with appropriate physical distancing,
o wearing a facial covering throughout class,
o sitting in the seats with appropriate spacing (and not moving furniture),
o using the sanitizing wipes available in the classroom to wipe surfaces (e.g., your desk, tablet arm) upon entry and exit,
o exit the classroom at my direction, proceeding in row-by-row fashion, following the designated egress route and maintaining proper distancing.
o <u>Facial coverings</u>. If you do not wear a facial covering to class, I will ask you to put one on (and if you don't have one with you, I will direct you to a distribution location on campus). If you do not comply, please remember that you will be subject to student conduct proceedings, up to and including removal from CMU. Accordingly, I will be obliged to take other measures for the safety of the whole class.

Expectations for Zoom Participation:

In our course, we will be using Zoom for synchronous (same time) sessions. The link is available on our course page on Canvas. Please make sure that your Internet connection and equipment are set up to use Zoom and able to share audio and video during class meetings. (See <u>this page</u> from Computing Resources for information on the technology you are likely to need.) Let me know if there is a gap in your set-up as soon as possible, and we can see about finding solutions.

Sharing video: Being able to see one another helps to facilitate a better learning environment and promote more engaging discussions. Therefore, students are encouraged to have their cameras on during lectures and discussions. However, I also understand there may be reasons students would not want to have their cameras on. If you have any concerns about sharing your video, please email me as soon as possible and we can discuss possible adjustments. Note: You may use a background image in your video if you wish; just check in advance that this works with your set-up.

Other guidelines: During our class meetings, please keep your mic muted unless you are sharing with the class or your breakout group or asking me a question. You may also use the chat or the "raise hand" feature to ask questions (available when the participant list is pulled up). I will do my best to monitor these channels in order to call on students to contribute.

Start of Semester with Fully Remote Instruction:

Following university-wide policies this semester, <u>class will be fully remote for the first two weeks of the semester</u> (that is, 2/1-2/5 and 2/8-2/12). We will meet synchronously on Zoom at the usual times for these two weeks and otherwise conduct our business as normal. Students are encouraged to attend these meetings live, but alternatively they can earn attendance and participation credit by watching the recorded lectures later and posting short, one-paragraph responses on Canvas (that is, doing the normal alternative attendance and participation option available during the semester). Course expectations will otherwise be the same.

Other Potential Shifts to Fully Remote Format:

If the class needs to go fully remote at any other point this spring, you will get an email from me, and an announcement will be posted on Canvas. If this occurs, we will plan to use the same Zoom link available on Canvas for remote learners throughout the semester for our new course meetings. At any point during the semester, you can also choose to participate in the class remotely yourself. If you decide to switch to remote for a sustained period of time, please try to let me know by email so that I can prepare the breakout rooms and in-class sessions appropriately. In addition, if you are able, let me know the expected length of your remote engagement.

Inappropriate Technology Use:

This semester involves regular use of technology in class – both for in-person and remote students. Research has shown that divided attention is detrimental to learning, so I encourage you to close any windows not directly related to what we are doing while you are in class. Please turn off your phone notifications and limit other likely sources of technology disruption, so you can fully engage with the material, each other, and me. This will create a better learning environment for everyone.

Note on Recording of Lectures:

All synchronous classes will be recorded on Zoom so that students in this course (and only students in this course) can watch or re-watch past class sessions. Please note that breakout rooms will not be recorded. I will make recordings available on Canvas as soon as possible after each class session (usually within 3 hours of the class meeting). Recordings will live in our Canvas website. Please note that you are not allowed to share these recordings. This is to protect your FERPA rights and those of your fellow students.

Academic Integrity/Misconduct:

All work you do in this course is expected to be your own. Absolutely no cheating or plagiarism (use of someone else's words or ideas without properly citing them) will be tolerated. Any cases of cheating or plagiarism will be reported to the university according to the University Policy on Academic Integrity. For questions about this policy, see http://www.cmu.edu/policies/student-and-student-life/academic-integrity.html

Accommodations for Disabilities:

If you have a disability and have an accommodations letter from the Disability Resources office, please discuss your accommodations or needs with me as early in the semester as possible. I will work with you to ensure appropriate accommodations are provided. If you suspect you may have a disability and would benefit from accommodations but are not yet registered with the Office of Disability Resources, I encourage you to contact them at access@andrew.cmu.edu.

Maintaining Personal Wellness:

General guidance: Take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep, and taking some time to relax. This will help you achieve your goals and cope with stress. All of us benefit from support during times of struggle. You are not alone. There are many helpful resources on campus, and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is key. If you or anyone you know experiences any academic stress, difficult life events, or feelings of anxiety or depression, we strongly encourage you to seek support. Counseling and Psychological Services (CaPS) is here to help. Call 412-268-2922 and visit their website at http://www.cmu.edu/counseling/. Consider reaching out to a friend, faculty, or a family member you trust for help in getting connected to support services.

For spring 2021: These semesters during the pandemic are unusual. We are all under a lot of stress and uncertainty at this time. Attending Zoom classes all day can take its toll on our mental health. Make sure to move regularly, eat well, and reach out to your support system or me if you need to. We can all benefit from support in times of stress, and this is no exception.

<div align="center">Note on Diversity and Inclusion:</div>

Respect for Diversity: It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the efficacy of the course for you personally or for other students or student groups. In addition, if any of our class meetings conflict with your religious events, please let me know so that we can make arrangements for you.

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Part 1 – Research Foundations

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Monday 2/1 & Wednesday 2/3. Research and research questions.
- *Designing Social Inquiry*, Ch. 1
- Krueger, Alan B. 2004. "Turning out the Vote." *The New York Times*, October 14.
- Intro to R (basics)
Recommended:
- Musgrave, Paul. 2017. "The Starbucks Curse: A Research Design Thought Experiment."

Monday 2/8 & Wednesday 2/10. Drawing (valid) causal inferences.
- FPSR, Chs. 3-4
- Intro to R (data wrangling)

Consider the course-wide research question on college students' political participation and its significance. Identify at least one working hypothesis that you think might shed more light on what explains it. Based on this, produce a two-page memo that introduces the question, being sure to address its theoretical and real-world significance (the "so-what?") in addition to your hypothesis about what explains it. Remember to phrase it as a "why?" (not a "what?") question and to use general terms (no proper nouns). Submit by 6pm on Sunday.

Monday 2/15 & Wednesday 2/17. Engaging with existing literature.
- *Craft of Research*, Ch. 16 (Introductions and Conclusions)
- Knopf, Jeffrey W. 2006. "Doing a Literature Review." *PS, Political Science & Politics* 39(1): 127-32.

Monday 2/22 & Wednesday 2/24. Conceptualization and measurement.
- FPSR, Ch. 5
- CPOST vs. GTD debate in *The Monkey Cage*
- R Module #3 (description)

Recommended:
- Peruse the codebooks for some of the primary databases in the field. How do they define and measure concepts like democracy, war, and terrorism? Do these measures look valid and reliable? How can we evaluate and improve them?
    - Polity: http://www.systemicpeace.org/inscr/p4manualv2017.pdf
    - COW: http://www.correlatesofwar.org/data-sets/COW-war/the-cow-typology-of-war-defining-and-categorizing-wars/view
    - GTD: https://www.start.umd.edu/gtd/downloads/Codebook.pdf

Memo #2: Literature Review – **due on Sunday, 2/28**
Identify at least ten studies (at least eight of which must be scholarly journal articles or books) about your research question, summarize them, and synthesize them into natural perspectives, camps, or schools of thought. In other words, outline what we know about your specific topic. Then, identify at least one flaw or "gap" in this literature – what we do not know – that might be amenable to further study. Based on this, write a two-page memo reviewing and evaluating the literature on your question. Circulate by 6pm on Tuesday.

Monday 3/1 & Wednesday 3/3. Case selection.
- Geddes, Barbara. 1990. "How the Cases You Choose Affect the Answers You Get: Selection Bias in Comparative Politics." In *Political Analysis*, vol. 2, ed. James A. Stimson, 131-50. Ann Arbor: University of Michigan Press.
- Gerring, John, and Lee Cojocaru. 2015. "Case-Selection: A Diversity of Methods and Criteria." *Working Paper.*

Recommended:
- Skocpol, Theda. 1976. "France, Russia, China: A Structural Analysis of Social Revolutions." *Comparative Studies in Society and History* 18(2); 175-210.

Part 2 – Research Strategies and Methods

Monday 3/8 & Wednesday 3/10. <u>Case studies.</u>
- Mahoney, James. 2000. "Strategies of Causal Inference in Small-N Analysis." Sociological Methods & Research." *Sociological Methods & Research* 28(4): 387-424.
- Fravel, Taylor. 2010. "The Limits of Diversion: Rethinking Internal and External Conflict." *Security Studies* 19: 307-41.
- R Module #4 (getting/importing data)

Recommended:
- Bellin, Eva. 2004. "The Robustness of Authoritarianism in the Middle East: Exceptionalism in Comparative Perspective." *Comparative Politics* 36(2): 139-57.
- Slater, Dan, and Daniel Ziblatt. 2013. "The Enduring Indispensability of the Controlled Comparison." *Comparative Political Studies* 46(10): 1301-27.

Problem Set #1: Descriptive Statistics – **due on Sunday, 3/14 by 6pm**

Monday 3/15 & Wednesday 3/17. <u>Interviews.</u>
- Leech, Beth, et al. 2002. "Symposium: Interview Methods in Political Science." *PS, Political Science & Politics* 35(4): 663-88.
- Pinderhughes, Howard. 1993. "The Anatomy of Racially Motivated Violence in New York City: A Case Study of Youth in Southern Brooklyn." *Social Problems* 40: 478-92.

Recommended:
- Parkinson, Sarah Elizabeth. 2013. "Organizing Rebellion: Rethinking High-Risk Mobilization and Social Networks in War." *American Political Science Review* 107(3): 418-32.

Monday 3/22 & Wednesday 3/24. <u>Surveys.</u>
- Krosnick, Jon A. and Stanley Presser. 2010. "Question and Questionnaire Design." In *Handbook of Survey Research*, eds. Peter V. Marsden and James D. Wright. Bingley, UK: Emerald.
- Berinsky, Adam, Kai Quek, and Michael Sances. 2012. "Conducting Online Experiments on Mechanical Turk." *Newsletter of the APSA Experimental Section* 3(1): 2-6.

Recommended:
- Keeter, Scott. 2005. "Survey Research." In *Doing Research: Methods of Inquiry for Conflict Analysis,* ed. Daniel Druckman. Thousand Oaks, CA: Sage Publications, Inc.

Monday 3/29 & Wednesday 3/31. Bivariate Association.
- FPSR Chs. 6-7
- R Module #5 (association)

Monday 4/5 – no class! CMU break day.

Wednesday 4/7 & Monday 4/12. Linear Regression.
- FPSR Chs. 8-9
- R Module #6 (regression)
Recommended:
- Brambor, Thomas, William R. Clark, and Matt Golder. 2006. "Understanding Interaction Models: Improving Empirical Analyses." *Political Analysis* 14(1):63-82.

Wednesday 4/14. Experiments 1 (lab and survey).
- Masoud, Tarek, Amaney Jamal, and Elizabeth Nugent. "Using the Qur'an to Empower Arab Women? Theory and Experimental Evidence from Egypt." *Comparative Political Studies* 49(12): 1555-98.
Recommended:
- Chung, Eun Bin. 2015. "Can Affirming National Identity Increase International Trust? Experimental Evidence from South Korean, Chinese, and Japanese Nationals." *International Studies Review* 16(1): 75-97.
- Sears, David O. 1986. "College Sophomores in the Laboratory: Influences of a Narrow Data Base on Social Psychology's View of Human Nature." *Journal of Personality and Social Psychology* 51(3): 515-30.

Monday 4/19 & Wednesday 4/21. Experiments 2 (lab-in-the-field and field).

- Gerber, Alan S., Donald P. Green, and Christopher Larimer. 2008. "Social Pressure and Voter Turnout: Evidence from a Large-Scale Field Experiment." *American Political Science Review* 102(1): 33-48.
- Robinson, Amanda. 2016. "Nationalism and Ethnic-Based Trust: Evidence from an African Border Region." *Comparative Political Studies* 49(14): 1819-54.
  Recommended:
- Loewen, Peter John, Daniel Rubenson, and Leonard Wantchekon. 2010. "Help Me Help You: Conducting Field Experiments with Political Elites." *ANNALS of the American Academic of Political and Social Science* 628(1): 165-75.

Problem Set #2: Regression Analysis – **due on Saturday, 4/24 by 6pm**

Monday 4/26 & Wednesday 4/28. Social media and text as data.
- King, Gary, Jennifer Pan, and Margaret E. Roberts. 2013. "How Censorship in China Allows Government Criticism but Silences Collective Expression." *American Political Science Review* 107(2): 326-43.
- Munger, Kevin. 2017. "Tweetment Effects on the Tweeted: Experimentally Reducing Racist Harassment." *Political Behavior* 39(3): 629-49.
  Recommended:
- Lucas, Christopher, et al. 2015. "Computer-Assisted Text Analysis for Comparative Politics." *Political Analysis* 23(2): 254-77.

> *Memo #4: Preliminary Data Analysis* – **due on Saturday, 5/1**
> Write a three-page memo in which you (briefly) restate your question and argument and then present a preliminary effort to empirically test it. If you are conducting a case study, you can present a "plausibility probe" or brief and preliminary analysis of your case. If you are analyzing existing data, you can present some descriptive results (e.g., cross-tabs, bar graphs, or scatterplots) or initial regression results that get at your key hypotheses. If you are collecting original data, you can present some "pilot" or preliminary interview, survey, or experimental results. Submit by 6pm on Saturday.

Monday 5/3 & Wednesday 5/5. Final presentations.
- No readings, presentation week!

Final paper due Monday, May 17th at 6pm