# POLS 2220: Political Science Research Methods

#### Fall 2021

Lecture: Professor: Email: Office: Office Hours:	Tuesday & Thursday 11:30 a.m. – 12:45 p.m. Dr. Yaoyao Dai yaoyao.dai@uncc.edu (include "POLS2220" in subject line) Fretwell 450B Tuesday 4:15 – 5:15 pm Thursday 2:00 – 3:00 p.m. and by appointment
Lab:	Tuesday 1:00 – 1:50 p.m.
TA/Lab Instructor:	Angie Torres (atorre21@uncc.edu)
Office:	Fretwell 470F
Office Hours:	Wednesday & Friday 12:00 – 1:00 pm

This syllabus contains the policies and expectations I have established for POLS 2220. Please read the entire syllabus carefully before continuing in this course. I reserve the right to modify the standards and requirements outlined in this syllabus at any time. I will notify you of such changes by announcements in class and posting a new syllabus on Canvas.

### 1 Course Description

*POLS 2220 Political Science Research Methods* provides an introduction to research design and quantitative analysis in the social sciences. Students will learn how to construct theories and design studies, how to quantify concepts, and how to test hypotheses using a variety of statistical techniques, including descriptive analysis, correlation, hypothesis testing, and regression analysis. The course will include classroom lectures and computer lab sessions to enable students to work hands-on with datasets. Basic math skills (algebra) are recommended.

The **Objectives** of this course are threefold:

- This course will provide you with the knowledge to *understand* and *evaluate* social science research, especially quantitative social science studies. To this end, we'll spend the first part of the course to learn the basics of social scientific inquiry: how to ask questions about social phenomena and how to produce and evaluate answers to those questions.
- This course will provide you with tools and opportunities to **do** quantitative research in political science. To this end, we'll learn–both by hand and with computer software– to use various statistical techniques including hypothesis testing and regression, to assess our hypotheses. At the end of the class, you will be able to write a research paper with data analyses.
- This class should equip you with the mind and tools to *apply* the knowledge you learned to your everyday life and advance your future career. The course should help you become a more critical consumer of information and a conscientious producer of knowledge.

### 2 Required Readings:

- EPA: Philip H. Pollock III and Barry C. Edwards. 2019. The Essentials of Political Analysis, 6th Edition. CQ Press.
- Additional Readings: Will be available on Canvas.

### 3 Computation

We will teach the course using R and RStudio Cloud. R is an open-source programming language widely used for statistical analyses in academia and various industries. RStudio Cloud is a cloud based user-friendly IDE (integrated development environment) for R. You only need to sign up for a free account at https://rstudio.cloud. The website provides detailed information on how to program using RStudio cloud. You can also find helpsheets and cheatsheets on Canvas. The best and only way of learning to program is through practicing. Additional practice outside of the labs is strongly recommended but optional. In addition to the textbook and lab materials, you can find tutorials and short exercises DataCamp (https://learn.datacamp.com).

#### 4 Course Requirements

Attendance and Participation in all lectures and lab sessions are required and graded unless otherwise noted by the professor. To facilitate the participation in the virtual classroom, there will be various in-class activities, such as polls, quizzes, and discussions. We will use Poll Everywhere for in class polls and quizzes. Students can access Poll Everywhere using a phone, laptop, or tablet to answer in-class polls and quizzes. Please check https://www.polleverywhere.com/ and https://teaching.uncc.edu/ academic-technologies/student-response-system/student-guides for more information. You can earn additional participation points by speaking in class. Please don't be afraid to speak up! Remember that a sincere question often adds as much (if not more) to our understanding of the course material as my lecture. If you have a compelling reason for missing class (hospitalization, family death, etc.), you can provide documentation to the Dean of Students Office and they will contact your instructor. Please inform me as soon as possible as well; I reserve the right to grant excused absences (and make-up work) in extraordinary circumstances. If you miss class, you are expected to get notes from a fellow student – "private make-up lectures" with the professor or lab instructor will not occur.

**Readings.** All readings should be completed by the date indicated in the syllabus. Unless otherwise noted, this means that weekly readings should be completed before the first lecture each week. It is very important that you come to class prepared so you can get the most out of the lectures and are ready to ask (and answer) questions about the readings. I may call on students at random with questions from time to time.

Weekly Lab Assignments. Lab assignments will be given during each lab session on Tuesday. The lab assignments usually include both programming questions (problem-solving) and short answer questions (interpretation of results). You will submit the R code with your interpretation through Canvas. Completed lab assignments are due before the following Tuesday. Lab assignments will be accepted and graded. However, they will be subject to a 5% scores per day (including weekends) late penalty. Exceptions will be made on a case-by-case basis and should be discussed in advance with the professor or lab instructor.

**Exams.** Students will take a midterm exam and a final exam. The exams will assess your knowledge of the material contained within the assigned readings, the lecture, and our course discussions. The exams may consist of multiple-choice, problem-solving, and essay questions. I will provide more information as the exam dates approach. The final exam will be cumulative, though its content will be heavily weighted to the material covered between the midterm and final exams.

**Research Paper.** At the end of the class, you will be able to conduct your own research and you will practice conducting your own research on any topic in political science that interests you. Conducting individual research is a time-intensive process, and, to help you structure your time throughout the semester, you will complete two written assignments. You will also have one chance to revise for each assignment.

After the first half of class you will turn in a "Research Design" paper with an empirical question and literature review. After the second half of class, you will turn in a Data Analysis paper with statistic analysis on real data and your interpretation of the results and finding. The two written assignments can be on the same or different topics. You can find additional instruction and requirements for each component of the research paper on Canvas.

Extra Credit Q&A Participation. Helping others and seeking help are important components in learning, especially in learning programming skills. To this end, we will be using Piazza for questions and answers after class. Using Piazza will allow you to learn from other students' questions and allow you to help each other in the virtual environment. Rather than emailing questions to the teaching assistant and me, I encourage you to post your questions on Piazza and answer your peers' questions. Both the TA and I will regularly check the board and answer questions. If your questions do not get any responses from the classmates and us within 24 hours or if you need additional help, please email me or Ms.Torres. For each qualified question and answer you post, you will earn 1 points. Each week you can earn up to 3 points maximum. At the end of the course, I will announce four awards with two recipients per award: *Best Question Award*, *Best Answer Award*, *Most Question Award*, and *Most Answer Award*. Each recipient can earn up to 2 awards. Each award worth extra 1% of the final grade. Your questions should be related to the substantive course content. For example, you can ask clarification questions about statistical concepts and ask help to debug an error in your code. Questions such as when and where we will hold class, and where to find course materials will not be count towards extra credit. You should not copy-paste your own R codes and homework answer when answering other students' questions.

You can sign up our class Piazza page at: https://piazza.com/uncc/fall2021/202180pols222000210056. You can also find Piazza on Canvas.

### 5 Grading Policy

Lecture and Lab Participation	10%
Weekly Assignments	20%
Midterm Exam	10%
Final Exam	15%
Writing Assignments	
Assignment 1: Empirical Question and Literature Review	
First draft	$\dots 5\%$
Revision	15%
Assignment 2: Hypotheses, Data Description, Analysis, and Inference	
First draft of hypotheses and data description	$\dots 5\%$
Revision + Analysis, and Inference	15%
Presentation	
Extra credit Q&A piazza participation	$\dots 5\%$
Extra credit POLS Lab participation	
106 points possible out of 100 point	s total

Points	Letter Grade
90 - 100	А
80 - 90	В
70 - 80	$\mathbf{C}$
60 - 70	D
0 - 60	F

# 6 How do I succeed?

While this course covers new and challenging statistical and computational materials, the actual math that we do in this class will not be harder than what you learned in middle school. My goal as your instructor is to make this material as easy for you to understand as possible. But I cant do that without your help. To succeed in this class, you must:

#### Attend and participate in class.

**Do your best with the readings,** and bring any questions that you have with you when you come to class. It is very important that you come to class prepared so you can get the most out of the lectures and are ready to ask (and answer) questions about the readings. If you ever have trouble with a reading, please dont hesitate to post your questions on Piazza and/or come to the office hours.

**Come to office hours.** Do not be shy about coming to office hours. Do not be shy about asking for help. Attending office hours does not mean that you are not smart; it simply means that you care enough about your performance to use the resources available to you!

**Practice, Practice, and Practice!** Practice is the only way to master statistics and programming. I recommend you to build a routine of coding every day or every other day. It does not need to be long. You will find that overall you need to spend less time on lab assignments if you keep practice frequently.

**Plan ahead.** Conducting individual research is time-intensive. After the second week of class, you should already start thinking about what research questions you are interested in and are able to complete within this semester.

### 7 General Policies and Expectations

**RESPECT.** In this course, we are learning challenging statistical and computational knowledge. We will also read and discuss political science research on sensitive and controversial topics. Everyone comes to this course with a different background and knowledge in both the statistics and the substantive topics. It is important that we all treat each other with the utmost respect. The conflict of ideas is encouraged and welcome. However, you should base your opinion on logic and empirical evidence, instead of beliefs and stereotypes. I will exercise my responsibility to manage the classroom so that ideas and arguments can proceed in an orderly fashion. You should expect that if your conduct during class seriously disrupts the atmosphere of mutual respect, you will not be permitted to participate further. Unwelcome conduct directed toward another person based upon that persons actual or perceived race, actual or perceived gender, color, religion, age, national origin, ethnicity, disability, or veteran status, or for any other reason, may constitute a violation of University Policy 406, The Code of Student Responsibility. Any student suspected of engaging in such conduct will be referred to the Office of Student Conduct.

**WORKING TOGETHER.** I encourage you to work together on the course materials and assignments. We learn from each other's questions and experiences. Moreover, there is no better way to master the materials than to explain to your peers. However, every keystroke that you type and every mark you make with a pen or pencil must be your own work. You **cannot** collaborate on the midterm and final exams.

LATE ASSIGNMENTS. Assignments not submitted by the assigned due date and time are late. All assignment deadlines are based on the Eastern Time Zone (ET), not your local time zone. Please be sure to pay close attention to any time differences if you are located in a different time zone. Given potential technical difficulties that may arise with things like your internet connection, I strongly recommend that you do not wait until the last moment to submit your assignments. Late submissions will be accepted; however, they will be subject to a 5% scores per day (including weekends) late penalty.

**EXTENSIONS.** Extensions will be granted in only the most severe circumstances. If you foresee the need for an extension, one needs to be requested and granted at least 24 hours before the due date. No one is entitled to an extension; they will be offered only at my discretion.

**REGARDING GRADES.** I do not give grades. You earn grades. If, at any point, you are unsure of your current standing in the course, please come to my office hours. Do not wait until grades are posted and then ask how your grade could be improved. At that point, barring a mathematical error on my part, it cannot be.

**ACADEMIC INTEGRITY.** All students are required to read and abide by the Code of Student Academic Integrity. Violations of the Code of Student Academic Integrity, including plagiarism, will result in disciplinary action as provided in the Code. Definitions and examples of plagiarism are set forth in the Code. The Code is available from the Dean of Students Office or online at https://legal.uncc.edu/policies/up-407.

All course work by students is to be done on an individual basis unless an instructor clearly states that an alternative is acceptable. The instructor and TA may ask students to produce identification at examinations and may require students to demonstrate that graded assignments completed outside of class are their own work. Any reference materials used in the preparation of any assignment must be explicitly cited. Students uncertain about proper citation are responsible for checking with their instructor.

**DISABILITY ACCOMMODATIONS.** Students in this course seeking accommodations for disabilities must first consult with the Office of Disability Services and follow the instructions of that office for obtaining accommodations. I will do everything I can to meet the requested accommodations.

**PREFERRED GENDER PRONOUN.** This course affirms people of all gender expressions and identities. If you prefer to be called a different name than what is indicated on the class roster, please let me know. Feel free to correct me on your preferred gender pronoun. If you have any questions or concerns, please do not hesitate to contact me.

**ABSENTEEISM DURING COVID-19.** Students are expected to attend every class and remain in class for the duration of the session when it is safe to do so in accordance with university guidance regarding COVID-19. Failure to attend class or arriving late may impact your ability to achieve course objectives which could affect your course grade. An absence, excused or unexcused, does not relieve a student of any course requirement. Regular class attendance is a students obligation, as is a responsibility for all the work of class meetings, including tests and written tasks. Any unexcused absence or excessive tardiness may result in a loss of participation points.

For absences related to COVID-19, please adhere to the following:

- Complete your Niner Health Check each morning.
- Do not come to class if you are sick. Please protect your health and the health of others by staying home. Contact your healthcare provider if you believe you are ill.
- If you are sick: If you test positive or are evaluated by a healthcare provider for symptoms of COVID-19, indicate so on your Niner Health Check to alert the University. Submit a copy of your Niner Health Check notification email to your instructors. Upon learning that you have tested positive or have been diagnosed for symptoms of COVID-19, either from your reporting or from Student health Center testing or diagnosis, representatives from Emergency Management and/or the Student Health Center will follow up with you, and your instructors will be notified of the need for accommodations, as necessary.
- If you have been exposed to COVID-19 positive individuals and/or have been notified to self-quarantine

due to exposure, indicate so on your Niner Health Check to alert the University. Representatives from Emergency Management and/or the Student Health Center will follow up with you as necessary. Submit a copy of your Niner Health Check notification email to your instructors. If you need any additional support verifying your absence after you have communicated with your professors, contact Student Assistance and Support Services.

• To return to class after being absent due to a period of self-quarantine, students should submit a copy of their Niner Health Check clearance email to their instructor(s). To return to class after being absent due to a COVID-19 diagnosis, students should submit an online request form to Student Assistance and Support Services (SASS). Supporting documentation can be attached directly to the request form and should be from a student's health care provider or the Student Health Center, clearly indicating the dates of absences and the date the student is able to return to class. Instructors will be notified of such absences.

# 8 Tentative Course Schedule

This schedule should be treated as tentative and flexible, given that we live in a time full of uncertainty. It may also be the case that it takes us more or less time for a particular topic than I have allotted here. We will adapt accordingly. In the event that deviations from this schedule are necessary, they will be announced in class and updated on Canvas. Additional readings to the textbook will be uploaded to Canvas at least one week before class.

#### Week 1 (Aug.23 - Aug.29): Introduction to Class and Scientific Method.....

- Readings:
  - Syllabus
  - $-\,$  EPA Introduction pgs. xviii $-\,$  xxii
  - William Roberts Clark, Matt Golder, and Sona Nadenichek Golder. 2017. Principles of comparative politics. CQ Press. Ch.1 (pgs.1-15) and Ch.2 (On Canvas)
  - (Optional) Dean Knox and Jonathan Mummolo. July 15, 2020. "A widely touted study found no evidence of racism in police shootings. Its full of errors." *The Washington Post.*
  - (Optional) Ed Yong. April 7, 2016. "No, Wait, Short Conversations Really Can Reduce Prejudice." The Atlantic.
- **Due 11:59 p.m.**: Post an introduction to Piazza and respond to one other students post. (Extra credit)
- Aug. 24: No Lab

#### Week 2 (Aug.30 - Sep.5th): Overview of Empirical Research Methods.....

- Readings:
  - EPA Ch.4 Research Design ... (pgs.105-114) & Ch.10 Conducting Your Own Political Analysis
  - Jim Walsh. 2006. "A Guide to Writing Literature Reviews in Political Science and Public Administration." https://politicalscience.uncc.edu/sites/politicalscience.uncc.edu/ files/media/docs/litreviews.pdf
  - Read Abstracts and Skim Structures:
    - \* Field Experiment: Robert M Bond et al. 2012. "A 61-million-person experiment in social influence and political mobilization." *Nature* 489 (7415): 295–298
    - \* Field Experiment, Elites as Subjects: Edmund Malesky, Paul Schuler, and Anh Tran. 2012. "The adverse effects of sunshine: a field experiment on legislative transparency in an authoritarian assembly." *American Political Science Review:* 762–786

- \* **Natural Experiment:** Daniel N Posner. 2004. "The political salience of cultural difference: Why Chewas and Tumbukas are allies in Zambia and adversaries in Malawi." *American Political Science Review:* 529–545
- \* Formal Model and Experiment: Matthew H Graham and Milan W Svolik. 2020. "Democracy in America? Partisanship, Polarization, and the Robustness of Support for Democracy in the United States." *American Political Science Review* 114 (2): 392–409
- \* Formal, Qualitative, and Quantitative: Jesse Driscoll. 2012. "Commitment problems or bidding wars? Rebel fragmentation as peace building." *Journal of Conflict Resolution* 56 (1): 118–149
- \* **Computational/Big Data:** Gary King, Jennifer Pan, and Margaret E Roberts. 2013. "How censorship in China allows government criticism but silences collective expression." *American Political Science Review:* 326–343
- Lab & lab hw: Introduction to R Notebook

#### Week 3 (Sep.6 - Sep. 12): Empirical Question, Theory, and Hypotheses .....

- Readings:
  - EPA Ch. 3 Proposing Explanations... pgs.72-85
  - Kostanca Dhima and Matt Golder. 2020. "Secularization Theory and Religion." *Politics and Religion:* 1–17 only read pgs.1-5
  - Jim Walsh. 2006. "A Guide to Writing Literature Reviews in Political Science and Public Administration." https://politicalscience.uncc.edu/sites/politicalscience.uncc.edu/ files/media/docs/litreviews.pdf
  - Optional Interactive Guide to Game Theory: Case, Nicky. The Evolution of Trust. (A nice interactive guide to the game theory of how and why we trust each other. A repeated normal form game.)
- Sep. 9 Lecture: Library Session
- Lab & lab hw: Basic syntax in R

#### Week 4 (Sep. 13 - Sep.19): Concept, Measurement, and Variables .....

- Readings:
  - EPA Ch. 1 The Definition and Measurement of Concepts
  - EPA Ch. 2 Measuring and Describing Variables
  - Seva Gunitsky. June 23, 2015. "How do you measure democracy?" The Washington Post, Monkey Cage.
- $\bullet$  Lab & lab hw: Data frames and variables in R
- **Due:** Writing Assignment 1 (Empirical Question and Literature Review)

### Week 5 (Sep. 20 - Sep. 26): Relationship between Variables .....

- Reading:
  - EPA Ch. 2 Measuring and Describing Variables
  - EPA Ch. 5 Making Controlled Comparisons
  - (Optional) DIgnazio, Catherine and Lauren Klein. 2020. "What Gets Counted Counts?" In Data Feminism. March 16.
- Lab & lab hw: Describe variables in R
- Sep. 23rd: Founder's Day, No class

#### Week 6 (Sep. 27 - Oct. 3): Mid-Term Exam

• Readings:

<ul> <li>Mid-term exam study guide (On Canvas)</li> <li>Sep. 30: Midterm exam during class time</li> <li>No office hours with Dr. Dai, APSA Annual Conference</li> </ul>
<ul> <li>Week 7 (Oct. 4 - Oct. 10): Foundations of Statistic Inference</li></ul>
<ul> <li>Week 8 (Oct. 11 - Oct. 17): Significance Testing and Association</li></ul>
<ul> <li>Week 9 (Oct. 18 - Oct. 24): Significance Testing and Association</li></ul>
• Lab & lab hw: Significance test in R
<ul> <li>Week 10 (Oct. 25 - Oct. 31): Correlation and Linear Regression</li></ul>
<ul> <li>Week 11 (Nov. 1 - Nov. 7): Linear Regression II</li></ul>
<ul> <li>Week 12 (Nov. 8 - Nov. 14): Multiple Regression</li></ul>
<ul> <li>Week 13 (Nov. 15 - Nov. 21): Logistic Regression</li></ul>
Week 14: Thanksgiving. No Class
<ul> <li>Week 15 (Nov. 29 - Dec.5): Data Project Presentation</li></ul>

• Lab: Logistic Regression & Review

• Dec.2 Lecture: Group 2 Presentation

Week 16 (Dec. 6 - Dec.8): Final Review.....

- Reading:
  - Final review sheet (CANVAS)

Final Exam: TBD

Due Dec. 16: Revision of Writing Assignment 2

### 9 Additional Information

**Counseling and Mental Health Services.** It is common for college students to experience challenges that may interfere with academic success such as academic stress, sleep problems, juggling responsibilities, life events, relationship concerns, or feelings of anxiety, hopelessness, or depression. If you or a friend is struggling, we strongly encourage you to seek support. Helpful, effective resources are available on campus at no additional cost.

Visit the Counseling and Psychological Services website at caps.uncc.edu for information about the broad range of confidential on-campus mental health services, online health assessments, hours, and additional information.

Call CAPS at (704) 687-0311 if interested in scheduling an appointment with a counselor. After-hours crisis support is also available through this phone number.

**Title IX Statement.** UNC Charlotte is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or experiences any of these incidents, know that you are not alone. UNC Charlotte has staff members trained to support you in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more.

Please be aware that many UNC Charlotte employees, including all faculty members, are considered Responsible Employees who are required to relay any information or reports of sexual misconduct they receive to the Title IX Coordinator. This means that if you tell me about a situation involving sexual harassment, sexual assault, dating violence, domestic violence, or stalking, I must report the information to the Title IX Coordinator. Although I have to report the situation, you will still have options about how your case will be handled, including whether or not you wish to pursue a formal complaint. Our goal is to make sure you are aware of the range of options available to you and have access to the resources you need.

If you wish to speak to someone confidentially, you can contact any of the following on-campus resources, who are not required to report the incident to the Title IX Coordinator: (1) University Counseling Center (counselingcenter.uncc.edu, 7-0311); (2) Student Health Center (studenthealth.uncc.edu, 7-7400); or (3) Center for Wellness Promotion (wellness.uncc.edu, 7-7407). Additional information about your options is also available at titleix.uncc.edu under the "Students" tab.

**Political Science Honors Program.** If you earn an A in POLS 2220 Research Methods and you meet minimum GPA requirements (3.5 in Political Science, 3.25 overall), you will be eligible for admission into the Political Science Honors Program. Students in this program are invited to special events throughout the year, including lunches with guest speakers, panels on applying to graduate school, and "meet the faculty" sessions. In order to graduate with the honors designation affixed on the transcript, POLS Honors students must complete a two-course honors thesis sequence: one semester to write the proposal (including literature review and research design) and another semester to complete and defend the thesis. For more information

about the Political Science Honors Program, please contact Dr. Whitaker at BWhitaker@uncc.edu.

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