PLS 201: Introduction to Methods of Political Analysis
Lectures—Tuesday and Thursdays: 3:00-4:20pm (Anthony Hall 1281)

I. Course Instructor:

Andrew Kerner
Department of Political Science, Office: 332 S. Kedzie Hall
Email: kerneran@msu.edu
(*Please include PLS 201 in the subject line)

Office Hours (virtual): Wednesday (2:00 – 3:00pm) or by Appointment
Join URL: https://msu.zoom.us/j/97833030556

II. Course Teaching Assistants:

TEACHING ASSISTANT	EMAIL / OFFICE HOURS	LAB SECTION	LAB LINK (WHEN ONLINE)
Haining Du	duhainin@msu.edu Office Hours: Friday 1 - 2pm https://msu.zoom.us/j/94481513515	(1) Thursday 12:40-1:30 pm	https://msu.zoom.us/j/92277301523
Joshua Koss	kossjosh@msu.edu Office Hours: Thursday 12-1 pm https://msu.zoom.us/j/91609591888	(3) Thursday 10:20 am – 11:10 am	https://msu.zoom.us/j/94160386494
		(4) Friday 11:30am – 12:20pm	https://msu.zoom.us/j/95427627456
Hyerin Seo	seohyeri@msu.edu Office Hours: Friday 3:30 – 4:30 pm https://msu.zoom.us/j/94489125005	(5) Friday. 12:40pm – 1:30 pm	https://msu.zoom.us/j/97653834911
		(6) Friday. 1:50pm – 2:40pm	https://msu.zoom.us/j/99344010179
Gerson Guevara	guevar20@msu.edu Office Hours: 12:00--1:00 pm Friday https://msu.zoom.us/j/93065542031	(7) Friday 3:00-3:50 pm	https://msu.zoom.us/j/93589384351
		(2) Friday 9:10-10:00 am	https://msu.zoom.us/j/94302767667
Jonathon Spiegler	spiegle2@msu.edu Office Hours: Tuesday 12:30-1:30pm https://msu.zoom.us/j/96681328948	(9) Thursday. 1:50pm – 2:40 pm	https://msu.zoom.us/j/96747761352
		(10) Thursday. 11:30pm – 12:20pm	https://msu.zoom.us/j/96151263653

III. Course Objectives:

This course is meant to familiarize students with the logic and tools of social-scientific analysis. We will learn why it is important to think about politics "like a political scientist," and we will begin to familiarize ourselves with some analytical tools for doing so.

Why is it important to "think like a political scientist"? Consider these questions:

➢ Which countries are most likely to go to war?
➢ How does free trade affect working class Americans?
➢ How likely is it that an incumbent will be re-elected to the state legislature?
➢ What factors help explain how justices on the U.S. Supreme Court decide a case?

Many of us have beliefs about the answers to these questions. Many of us have entire worldviews based on our beliefs about the answers to these questions. But those beliefs are typically drawn from intuition and, at best, a non-scientific and non-rigorous review of the evidence. Sometimes intuition and casual inspection of data leads us to accurate beliefs, but a lot of the time it doesn't.

Among political science's chief goals is to seek answers to political questions using rigorous and systematically applied processes and analytical tools. We want to replace intuition with method. This course is designed to help you do that by introducing you to the *scientific study* of politics, and by making you aware of some of the tools political scientists use to analyze political phenomena. It is also, in some ways, an introduction to the various subfields of political science and the sorts of questions that we use these techniques to answer.

Although this course emphasizes and relies on statistics and numbers, it is not a "math" class (although you should be familiar with basic algebra) or a class on statistical programming (through we will be using Microsoft Excel). Rather, this course is about logic, critical thinking, and scientific analysis. We will use statistics and numbers as tools to organize information, understand and assess sociopolitical phenomena. You will learn about developing research questions, setting up a test of those questions (research design), gathering relevant information (data), and making sense of that information (analysis).

You should leave this course with competencies in and knowledge of:
1. Common errors in human thinking and the methods that political science uses to prevent us from falling into these common human thinking errors.
2. The different subfields in political science and the applicability of different research methods to them.
3. Working with and writing about data on a broad array of politics-oriented topics, ranging from international conflict to elections to the courts.

But perhaps most importantly all you will be a better and more discerning consumer of data and statistics, as they are presented to you in academic and, especially, non-academic contexts. To consume

the news is to be deluded by analysis of various sorts, and this course will help you to make better sense of that deluge.

Prerequisites for this course: PLS 200 or MC 201

IV. Course Materials:

➢ Textbook and Readings:

REQUIRED: Please purchase, rent, borrow, or check out from the library the following (in hardcover or paperback):

- Wheelan, Charles. 2013. *Naked Statistics: Stripping the Dread from the Data.* New York, NY: W. W. Norton & Company.
- Okasha, Samir. (2002). *Philosophy of science: A very short introduction* (Vol. 67). Oxford Paperbacks.

OPTIONAL: We will be using Microsoft Excel for the statistical analysis portion of this course. If you are unfamiliar with Excel, the following text may be a useful resource for you. Using an earlier edition, such as the 2nd edition, is also acceptable.

- Neil J. Salkind. 2016. Excel Statistics: A Quick Guide (3rd edition). Thousand Oaks, CA: SAGE.

There will also be additional assigned materials—e.g., book chapters, research articles, news reports, video links—that I will make available via the course website on D2L (http://d2L.msu.edu).

➢ Software and Calculator:

We will use Microsoft Excel in this course to calculate descriptive statistics and perform statistical analyses. If you do not already have it, MSU has made access to Excel free to students. To download it follow the instructions here:

https://tech.msu.edu/technology/hardware-software/microsoft-licenses/

If for whatever reason you prefer to use google sheets, you should know that *the two programs are not exact copies*, and that some of the formulas we will be teaching you in excel will have to be amended to work in google sheets. The task of making those translations will fall to you, and unless you are already well-versed in this I would suggest against it.

In addition, you may want to have a scientific calculator for use on problem sets and exams. Any calculator with power functions, root functions, logarithms and exponential functions is sufficient.

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➢ Course Website:

The course website is Desire2Learn (hereafter D2L): http://d2L.msu.edu. You can access the additionally assigned readings and activities on D2L. Grades will be posted periodically on the course website. I will also announce schedule or course changes here. Assignment submissions will be done electronically via the Dropbox feature on D2L. Please check our course website on a regular basis.

V. Course Requirements:

TWO EXAMS: (20% EACH). There will be both a midterm and a final exam administered during the semester. The format of each exam will be described in a class session before the exam, but both exams will consist of a mixture of multiple choice, short answer, and/or problem-solving questions. The exams will assess your knowledge of material contained within the assigned readings, from lecture, from lab sections, and from our course discussions. The first exam will cover material from the first half of the course. The final exam is not cumulative, though information from the beginning of the semester will certainly be helpful as we discuss information from the latter portion of the class.

RESEARCH PROJECT: (40% TOTAL). You will be asked to complete a research project using one of several provided datasets. This project will build on the concepts and practices that you learn from this course. The research project will be worked on piecemeal throughout the second half of the semester. You will first select a dataset (of interest to you) from a set of five datasets that I will make available. With your dataset selected, you will then be asked to come up with a research question, put forward a theory (or theories) that might answer your question, carry out hypothesis testing from cross tabulation calculations, difference of means or proportions tests, or basic regression analyses, and make inferences pertaining to your research question.

Each of those steps will correspond to a short, worksheet-based assignment, i.e. you will have to fill out a worksheet describing your theory, a worksheet showing your hypotheses and how they relate to your theory, a worksheet showing how you calculated cross tabulations, etc. Corrected versions of those worksheets will form the basis of the final research project, which will bring together the material you worked on during the second half of the semester and turn it into a more polished whole.

The 40% of your grade taken up by the research project includes the final write up *and* the accumulated homework. That 40% is therefore better understood as 20% homework (5 homework assignments worth 4% each), and a final write up worth 20%.

For reference, the key components in the final write-up of your research project are:

Intro:	What is your Research Question? Why does it matter?
Theory and Hypotheses:	What theory or theories might answer this question? What are your hypotheses to test the theory or theories?
Data and Methods:	What dataset and variables are you using to analyze hypotheses?
Preliminary Findings:	Using your dataset and selected variables, what are your preliminary results from cross tabulation calculations, difference of means or

	proportions tests, or basic regression analyses? How can you best visually present your findings (e.g., table, graph)?
Limitations:	What are some potential limitations to your research design or findings? What might be another way to check those results (i.e., robustness check), to ensure they are not due to other factors?
Conclusion:	In a paragraph, recap what did you study, what did you find, and why does it matter (what are the implications)?

Overall, the final research proposal should be between 4 – 6 pages (double-spaced, 12pt. standard font, 1-inch margins), is worth 40% of your final grade, and is due Tuesday, April 28, 2022.

LAB ATTENDANCE AND PARTICIPATION: (20%). Attendance and active participation in your lab section is an important part of this course. We cover new material in lecture, and then students get a chance to engage this material in their individual sections. This is where students get to ask more in-depth questions, follow-up questions, discuss any problems with material, and dissect the material in a manner that cannot be done in lecture. Your section grade will be a function of two components: attendance (10%) and active participation (10%) in any in-class activities or discussions. Your individual section Teaching Assistants are responsible for grading your punctuality and participation and will advise you of their policies.

When discussion sections are done on-line via zoom, active participation requires that cameras be turned on.

Attendance will be taken in all the sections, online and live. Each student is allowed **TWO** unexcused absences in their section.

We are, of course, operating in a pandemic and your and your classmates' safety is paramount. I therefore want to stress the importance of communication. If you are sick, you should stay home from discussion. You do not need a doctor's note to render it "excused." You do, however, need to let us know ahead of time.

Beginning with the 3rd *unexcused* absence, students will lose 2 percentage points of their attendance grade for each subsequent absence (out of 10% total).

VI. Student Evaluation and Grading:

Grading Weights—your grade will be determined using the following weights:

- Midterm Exam: 20%
- Final Exam: 20%
- Research Project: 40%
  - Final paper (20%)
  - 5 homework assignments (20%)

- Lab   20%
  - Attendance (10%)
  - Participation (10%)

- TOTAL: 100%

Grading Scale:

4.0	90 – 100	**2.5**	75 – 79	**1.0**	60 – 64
3.5	85 – 89	**2.0**	70 – 74	**0.0**	Below 60
3.0	80 – 84	**1.5**	65 – 69		

*This is the grade scale that I will use to guide my grading decisions. If you earn the percentage listed above, you are assured at least that grade. However, I reserve the right to curve the final grades upward should I deem it necessary.

VII. Course Outline:

The outline below is subject to changes as necessary to account for the unique dynamics of teaching during the pandemic. Whenever changes are made, they will be announced through email and, if applicable, during in person lectures. Please be sure to check your email, including your D2L email.

The most obvious of those unique dynamics is that we will begin the semester online, and then move into the regular, in-person version of the course.

Once we get back to an in-person format, the course will have a familiar pacing. There will be a lecture twice a week, and a lab section once a week. The lectures will cover the assigned materials. The readings and activities assigned to a particular date are listed below. You should review the material ahead of time be prepared to answer any questions about the material for that day.

Lab time will be spent reviewing that material, teaching you how to operate excel, and supporting you as you write your research project. What gets covered in lab will vary week-to-week and, in general, shift towards a more specific focus on the research project as the semester progresses.

For the first few weeks, however, we will not be meeting in person. Some things will change during that time, some will remain (more or less) as they were intended.

Labs sections will, for the most part, remain on track and as originally designed. The only real difference is (obviously) that if we are meeting in person labs will be in person and if we are meeting via zoom labs will convene via zoom. That zoom link will be available through the course D2L site, and it is listed in the syllabus above.

The initial, introductory lecture will also be delivered as intended, except that we will convene it online via zoom rather than in person. It is EXTREMELY important that you attend that zoom call. We will discuss the syllabus, the course structure, and how both of those will respond to potential changes to the semester.

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After the initial lecture on January 11th, subsequent lectures will be handled differently as long as we are not meeting in person. Many students will be at home, and that will impinge everyone's ability to be in a specific place at a specific time. For that reason, the early lectures will be replaced by videos that can be viewed on your own schedule and which will be made available through the D2L site. That portion of the class will become essentially asynchronous.

The only constraint on your freedom to self-schedule the lecture videos is that you must have done the reading and watched the videos for that week *prior* to the lab section. Those lab sections occur on schedule, just as they would be if you were in class listening to the lectures live.

There will also be attendance-optional class-time zoom sessions for as long as we are not meeting in person. These zoom sessions will be loosely structured. I will summarize the material and take any questions that arise from the video or the readings (or the summary provided in session). Think of these as opportunities to seek clarification or further discussion of the assigned materials, rather than alternatives to the videos. Again, attendance at these sessions is optional.

In what follows these sessions (everything between January 13 – January 27) are listed as "optional review" and the assigned readings are paired with a corresponding video.

Date	Topic	Assigned Readings and Activities / Due Dates	Section Topic
Tuesday, Jan. 11	Intro & Syllabus Review	None	Week 1: Introduction
Thursday, Jan. 13 (optional review)	Errors in Human Thinking and Coping Mechanisms	*Read Kida: Introduction: A Six-Pack of Problems (D2L) **Watch "Errors in Human Thinking"**	
Tuesday, Jan. 18 (optional review)	Science vs. Pseudo-science—What is Science?	*Read Kida: Science vs. Pseudo-science (D2L) *Read Okasha, Ch. 1: What is science? **Watch "Science vs. Pseudoscience"**	Week 2: Review Science v Pseudo-Science; Review Deductive v Inductive Reasoning
Thursday, Jan. 20 (optional review)	Philosophy of Science: Popper, Hume, Feyerabend	*Read Okasha, Ch. 2: Scientific Reasoning **Watch "Why do we do (political) science?"**	
Tuesday, Jan. 25 (optional review)	Philosophy of Science: Kuhn & Paradigm Shifts; Political Science vs. 'Hard' Sciences	*Read Okasha, Ch. 5: Scientific Change and Scientific Revolutions *Read There's No Such Thing as "Sound Science" At: https://fivethirtyeight.com/features/the-easiest-way-to-dismiss-good-science-demand-sound-science/ (D2L)	Week 3: Review Research Process
Thursday, Jan. 27 (optional review)	The Research Process	*Read Wheelan, Ch. 1: What's the Point? *Read Pollock, Ch. 3: Proposing Explanations, Framing Hypotheses, and Making Comparisons (D2L) *You may stop reading at Pollack at page 86, and skim from there* **Watch "The Research Process"**	
Tuesday, Feb. 1	Descriptive Statistics and Inference I	*Read Wheelan, Ch. 2: Descriptive Statistics *Read Wheelan, Ch. 3: Deceptive Description **Watch "Descriptive Statistics** I"	Week 4: Intro to Excel, Using Excel for Descriptive Statistics
Thursday, Feb. 3	Descriptive Statistics and Inference II	*Read Wheelan, Ch. 4: Correlation *Read Washington Post article: "Aren't more white people than black people killed by police? Yes, but no." (D2L)	

		Watch "Intro to Excel", "Descriptive Statistics II"	
Tuesday, Feb. 8	Measurement & Describing Variables I	*Read Pollock, Ch. 1: The Definition and Measurement of Concepts (D2L)	Week 5: Review Measurement
Thursday, Feb. 10	Measurement & Describing Variables II	*Read Pollock, Ch. 2: Measuring and Describing Variables (D2L)	
Tuesday, Feb. 15	Observational vs. Experimental Studies I	*Read Pollock, Ch. 4: Research Design and the Logic of Control (D2L)	Week 6: Experimental vs. Observational Research Designs
Thursday, Feb. 17	Observational vs. Experimental Studies II	*Read Kerner, and Bodea *Fear of Inflation and Gender Representation in Central Banking* forthcoming in the **European Journal of Political Economy** (D2L) *Listen to Freakonomics Podcast: http://freakonomics.com/podcast/how-do-we-know-what-really-works-in-healthcare-a-new-freakonomics-radio-podcast/	
Tuesday, Feb. 22	Ethical Issues in Science and Political Science	*Read The Immortal Life of Henrietta Lacks chapters (D2L) *Read "Cruz Mailer, Inspired by Political Scientists…" Washington Post article. (D2L)	Week 7: Ethics in experiments
Thursday , Feb.24	Do an actual experiment	No assigned readings	
Tuesday, March 1	Mid-semester Recap and Review	No Assigned Readings	Week 8: Dataset Selection
Thursday, March 3	**Midterm Exam**		
Tuesday, March 8	**Spring Break---NO Class**		
Thursday, March 10	**Spring Break---NO Class**		
Tuesday, March 15	Basic Probability and Problems with Probability	*Read Wheelan, Ch. 5: Basic Probability *Read Wheelan, Ch. 6: Problems with Probability	Week 9: Offer Theories & Identify Variables **Dataset Selection HW due 3/18**
Thursday, March 17	Data, Polling, Surveys, and Sampling	*Read Wheelan, Ch. 7: The Importance of Data *Read Wheelan, Ch. 10: Polling	
Tuesday, March 22	Data Visualizations and Graphics	*Read Schneider & Jacoby (2016): Graphical Displays for Public Opinion Research (D2L)	Week 10: Describe Variables & Develop Hypotheses
Thursday, March 24	The Central Limit Theorem	*Read Wheelan, Ch. 8: The Central Limit Theorem	**Offer Theories & Identify Variables HW due 3/25**
Tuesday., March 29	Statistical Estimation and Inference I	*Read Wheelan, Ch. 9: Inference	Week 11: Cross-Tabulations with Excel
Thursday, March 31	Statistical Estimation and Inference II	*Read Pollock, Ch. 6: Foundations of Statistical Inference (D2L)	**Describe Variables & Develop Hypotheses HW Due 4/1**
Tuesday, April 5	Making Controlled Comparisons	*Read Pollock, Ch. 5: Making Controlled Comparisons (D2L)	Week 12: Hypothesis Testing & Inferences
Thursday, April 7	Hypothesis Testing I	*Read Pollock, Ch. 7: Tests of Significance (D2L)	**Cross Tabulations HW due 4/8**
Tuesday, April 12	Hypothesis Testing II	#Watch "Scientific Studies." Last Week Tonight with John Oliver. At: https://www.youtube.com/watch?v=0Rnq1NpHdmw	Week 13: Work on Research Project
Thursday, April 14	Hypothesis Testing III	*Read Feng, Kerner and Sumner 2021	**Hypothesis Testing & Inferences HW due 4/15**
Tuesday, April 19	Hypothesis Testing IV	*Read Wheelan, Ch. 11: Regression	Week 14: Work on Research Project
Thursday, April 21	Regression I: The Workhorse of Statistics	*Read Kerner and Pelc 2021 * Work on Research Project Analysis	
Tuesday, April 26	Regression II: Using Regression	*Read Kerner and Bodea 2022	Week 15: None.
Thursday, April 28	Review: The Power and Limitations of Science	***Final Research Project Due Today**	

| Thursday, May 5 | **Final Exam: 5:45 – 7:45pm** | Anthony Hall 1281 | |

#Content Disclaimer. Assignments marked with "#" contain content that may be offensive to some students. These comedy clips contain considerable profanity, irreverence for some individuals and groups' beliefs, and regular mentions of or depictions of sexual acts. While these clips are not terribly explicit by modern standards, you may prefer not to be exposed to them. As such, you will not be required to view them nor will you be evaluated on the content from these clips. Despite their vulgarity, these clips do offer useful information on the assigned topic, reinforcing important concepts.

VIII. Course Policies and Procedures:

Classroom Decorum: Politics can be controversial. And we will discuss controversial issues from time to time. I desire to create a space where meaningful and constructive dialogue is encouraged, and your opinions are shared. However, this requires from all of us mutual respect, a willingness to listen, and tolerance of opposing viewpoints. I expect that respect for individual differences and alternative points of view will be maintained at all times in this course. One's words and use of language should be tempered and within acceptable bounds of civility and decency.

Late Work, Make-Ups, Missed Quizzes or Exams: I expect students to make every effort to turn in assignments, take required quizzes / exams, or complete other activities on time and as scheduled. The only exceptions that will be made pertain to medical emergencies experienced by you or someone in your immediate family that necessitate your absence from campus, participation in a University-sponsored event or activity, or observance of a religious holiday. If you know in advance you will miss such a requirement, you must notify me in advance. If you are ill or other extenuating circumstances cause you to miss a required graded activity, notify me as soon as possible and provide appropriate documentation (e.g., doctor's note) that allows me to verify the validity of your claim.

Please note that for those assignments or activities turned in after the deadline that do not meet the aforementioned exceptions, we will apply a penalty to your assignment grade for every 24-hour period beyond the due date and time.

Communication with the Instructor and Teaching Assistants: We care about you and your success in this course, at MSU, and beyond. We welcome suggestions, comments, questions, and conversations about the course, political science, graduate school, or the professional arena outside academia. Feel free to stop by our office hours, or to set up an appointment to meet with any of us outside of our set office hours.

We will try to respond to all emails within 24 hours, although it may take longer on the weekends. We will also use email and our D2L site to frequently communicate with you about course assignments, activities, and any changes to the course schedule or syllabus. When emailing us, please be sure to include PLS 201 in the subject line.

Grade Appeals or Challenges: We are not infallible and make grading errors, including grading miscalculations, from time to time. We will use our course's D2L site to input attendance /

participation and assignment scores. Be sure to check the D2L site to ensure that we have not made any mistakes, and let us know as soon as possible if you believe we have.

Academic Integrity: Plagiarism and other academic dishonesty will not be tolerated. All work is expected to be original, and not previously or simultaneously turned in for credit in another course (unless you get explicit permission from me beforehand). All students at MSU are responsible for knowing and adhering to the academic integrity policies of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member (including but not limited to a zero for the assignment and/or course, being reported to the Dean's office) and non-academic sanctions (including but not limited to probation, suspension, or expulsion from the university).

Accommodations for Students with Disabilities (from the Resource Center for Persons with Disabilities (RCPD): Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at 517-884-RCPD or on the web at www.rcpd.msu.edu. Once your eligibility for an accommodation has been determined, you will be issued a Verified Individual Services Accommodation ("VISA") form. Please present this form to me at the start of the term and/or two weeks prior to the accommodation date (test, project, etc.). Requests received after this date may not be honored.

Religious   Observation   Policy:
http://www.hr.msu.edu/documents/facacadhandbooks/facultyhandbook/religiousobservance.htm

Sexual Harassment or Assault: Michigan State University and I are committed to fostering a culture of caring and respect that is free of relationship violence and sexual misconduct, and to ensuring that all affected individuals have access to services. For information on reporting options, confidential advocacy and support resources, university policies and procedures, or how to make a difference on campus, visit the Title IX website at www.titleix.msu.edu.

I am available if you would like to speak to me about an incident of sexual harassment or assault that occurred while you are a student at MSU. However, it is important to note that all MSU faculty members (and teaching assistants) are mandatory reporters through Title IX (the law that prohibits sex discrimination, which includes harassment, domestic and dating violence, sexual assault and stalking). If you speak to me about a personal experience, I have a responsibility to report my knowledge of the incident to the Title IX coordinator.