

PLS 201: INTRODUCTION TO METHODS OF POLITICAL ANALYSIS
Michigan State University — Online — July 2 – August 16, 2018

I. Course Instructor:

Marty P. Jordan, Ph.D. Candidate
Managing Editor, *American Journal of Political Science*
Department of Political Science, Office: 236 S. Kedzie Hall
Email: jordan61@msu.edu OR marty.jordan@gmail.com *Please include PLS 201 in subject line
Online Chat Hours: Fridays (10:00am – 12:00pm EDT)

II. Course Teaching Assistant:

Hyunwoo Kim, Ph.D. Candidate
Department of Political Science
Email: kimhyu85@msu.edu *Please include PLS 201 in the subject line
Online Chat Hours: Wednesdays (11:00am – 12:00pm EDT)

III. Course Objectives:

Consider these questions:

- What is the probability that two countries will go to war in a given year?
- 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?

While we may have general intuitions about how to answer these questions, one of the broad goals of political science is to seek a more rigorous and systematic answer to these types of inquiries. This course is designed to introduce you to the *scientific study* of politics and make you aware of some of the tools political scientists use to analyze political phenomena of interest.

Although this course emphasizes and relies on statistics and numbers, it is not a “math” class (although you should be familiar with basic algebra). Rather, this course is about logic, critical thinking, scientific analysis, and the use of 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). The course will foster comprehension of theoretical aspects of statistical analysis and the use of computer software for conducting analysis.

There are five main objectives. First, you will become generally familiar with the “philosophy of science” as it pertains to the social sciences. Second, you will be introduced to different puzzles, theories, and sub-fields of political science. Third, you will learn about the importance of research design and scientific methods. Fourth, you will gain an understanding of how to use numbers and data to accurately construct and test theoretically-motivated hypotheses. Finally, you will incorporate your statistical knowledge into a generally persuasive yet still truthful argument. Ultimately, our main goal is to tie these objectives together into a coherent understanding of the discipline of *political science*.

PLS 201: INTRODUCTION TO METHODS OF POLITICAL ANALYSIS
Michigan State University — Online — July 2 – August 16, 2018

As such, you should leave this course with the following competencies:

- You should learn about some common errors in human thinking and how these errors sometimes lead us to wrong (if comfortable) conclusions.
- You should understand that our discipline is made up of a set of rules and methods that are in place to prevent us from falling into these common human thinking errors.
- You should have a better understanding of the different subfields in political science and be able to employ methods to answer interesting and important research questions.
- You should have experience working with and writing about data on a broad array of topics ranging from international conflict to elections to the courts.
- You should become a *critical* consumer of news, data, and social science research results, and learn how to make “some” sense of the daily deluge of data and information.
- You should have a clearer idea about what political scientists do, and how to properly analyze academic studies, evaluate evidence, consider and develop theories, and summarize a large amount of literature in a manner that complements your own research.

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.

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>).

➤ Computer with Web Browser:

You **MUST** have access to a computer with a web browser (e.g., Chrome, Firefox, Internet Explorer, or Safari are recommended) and a high-speed internet connection to access the course material and complete module activities / assignments.

PLS 201: INTRODUCTION TO METHODS OF POLITICAL ANALYSIS
Michigan State University — Online — July 2 – August 16, 2018

➤ Software and Calculator:

We will use Microsoft Excel in this course to calculate descriptive statistics and perform statistical analyses. You are required to have access to Microsoft Excel or equivalent (either on your computer or access to computer lab with Microsoft Excel) In addition, you may want to have a scientific calculator for use during module quizzes and to complete the research project. Any calculator with power functions, root functions, logarithms and exponential functions is sufficient.

➤ Course Management Software:

The course management software we will be using is Desire2Learn (hereafter D2L): <http://d2l.msu.edu>. You can access the course lectures, additional readings, module quizzes, research project materials, grades, and other information on D2L. Grades will be posted periodically on the course website. I will also announce schedule or course changes here. And, any assignment submissions will be done electronically via the Dropbox feature on D2L. Please check our course website on a regular basis.

Any technical problems you encounter with D2L should be reported to MSU's Distance Learning Services, which is available 24 hours a day, 7 days a week. Their toll-free number is 1-800-500-1554.

V. Course Requirements:

The course is divided into six modules. For each module, there are assigned readings, two to three 30-45 minute lectures, mini-tests, and segments of the research project to be completed (all are posted on the course D2L site). Your final course grade will be based on the following components and percentages:

ENTRY AND EXIT SURVEYS: (10% TOTAL). You will take two surveys in this course. One is to be completed at the beginning of the course (during the first week) and the second at the end of the course (during the last week). You do not need to do anything to prepare for these surveys, nor do you need to answer questions correctly to earn credit, but you should take these surveys seriously. These should be easy points to earn, however, I do reserve the right to give no credit if it is obvious no faithful attempt was made to take the surveys seriously. The surveys are meant to assist me in assessing your level of knowledge entering the course and your competencies earned upon finishing the course.

SIX MINI TESTS: (50% TOTAL). You will take one mini-test for each of the six modules. These "tests" are open book, open note. I will drop the lowest score you receive on the mini-tests, only counting your five highest scores toward your final grade in the course. For each mini-test, you will be required to answer 15 multiple-choice questions and one essay question within a one-hour period (from the time you start the mini-test). Many of the multiple-choice questions will mirror those practiced during the lectures. For the essay question, you will be able to pick between one of two essay options. You are encouraged to pick the essay question you believe you can answer best. We expect essay answers to be thorough, fully answer the question, and contain several examples to support an argument or conclusion. Although quality matters more than quantity, you should be prepared to write at least three to four paragraphs (maybe more) to adequately answer the question. The mini-tests will assess your knowledge of material contained within the assigned readings, from

PLS 201: INTRODUCTION TO METHODS OF POLITICAL ANALYSIS
Michigan State University — Online — July 2 – August 16, 2018

lectures, and from working on the research project. Although the mini-tests are not necessarily cumulative, information discussed in each module will be relevant to subsequent modules.

RESEARCH PROJECT: (40% TOTAL). You will be asked to complete a Research Project (RP) using one of two provided datasets. This project will build on the concepts and practices that you learn from each module, allowing you an opportunity to directly engage in social science research. A Sample Research Project, Help Sheets, and Research Project Rubric are all provided on D2L. The following lays out the different components and corresponding due dates for the RP:

1. Dataset Selection & Research Question (20 pts): Due 7/13/2018, 11:59pm EDT
 - Pick one of the two datasets, formulate a research question, and justify why that research question is important.
2. Offer Theories & Identify Variables (20 pts): Due 7/20/2018, 11:59pm EDT
 - Propose (at least) two theories that explain the why or the how of your research question.
 - Identify the *key* dependent variable (with level of measurement) you are trying to explain, and (at least) two *key* independent variables (with levels of measurement) you will rely on to explain the dependent variable.
3. Describe Variables & Develop Hypotheses (20 pts): Due 7/27/2018, 11:59pm EDT
 - Use Excel to calculate the mean, median, mode, variance, and sd. deviation of your key variables
 - Develop (at least) two hypotheses from your theories and selected variables, making sure that the hypotheses are properly constructed. These hypotheses will be used to test your theories.
4. Calculate Cross Tabulations for Variables (20 pts): Due 8/3/2018, 11:59pm EDT
 - Provide (at least) two Cross-Tabulation tables to show the relationship between different values of the key dependent variables and different values of the respective independent variables.
5. Hypothesis Testing & Inferences (20 pts): Due 8/10/2018, 11:59pm EDT
 - Using the cross-tabulation tables you constructed and Excel formulas, calculate the confidence intervals for the respective sample means or proportions, determine whether the confidence intervals overlap, and make an inference about the relationship between the variables. Extra credit: provide bar chart or graph of the relationship between variables.
6. Final Research Project (100 pts): Due 8/16/2018, 11:59pm EDT
 - The Final Research Project simply comprises in one document all the components above (1 – 5), and one additional component: A Conclusion and Limitations section, where you identify (at least) two main takeaways from your study and (at least) two limitations to your findings or research design (i.e., why we might still be skeptical of your findings). The Final Research Project should incorporate any feedback you received on each of the prior components of the process, as each segment builds on the others.

EXTRA CREDIT TEACHING EVALUATION: (5% TOTAL). There is an optional, anonymous evaluation of my teaching style and approach that I ask all students to take at the end of the course. It is short and should take approximately 10 minutes to complete. You will receive 25 extra credit points for completing this anonymous evaluation.

PLS 201: INTRODUCTION TO METHODS OF POLITICAL ANALYSIS
Michigan State University — Online — July 2 – August 16, 2018

VI. Student Evaluation and Grading:

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

- Entry and Exit Surveys (25 points each): 50 points 10% Total
- 6 Mini-Tests (50 points each, lowest score dropped): 250 points 50% Total
- Research Project: 200 points 40% Total
 - Dataset Selection & Research Question (20 pts)
 - Offer Theories & Identify Variables (20 pts)
 - Describe Variables & Develop Hypotheses (20 pts)
 - Calculate Cross Tabulations for Variables (20 pts)
 - Hypothesis Testing & Inferences (20 pts)
 - Final Research Project (100 pts)
- Total: 500 points 100% Total
- Extra Credit Teaching Evaluation 25 points 5% Bump

Grading Scale:

4.0	450 – 500+ pts	2.5	375 – 399 pts	1.0	300 – 324 pts
3.5	425 – 449 pts	2.0	350 – 374 pts	0.0	Below 300 pts
3.0	400 – 424 pts	1.5	325 – 349 pts		

VII. Course Schedule:

Assignment/Event:	Due Date:
Class Begins	7/2/2018
Open Add Period Ends	7/5/2018
Entry Survey due (25 points)	7/6/2018, 11:59pm EDT
Module 1 Mini-Test due (50 points)	7/6/2018, 11:59pm EDT
Module 2 RP: Dataset Selection & Research Question due (20 points)	7/13/2018, 11:59pm EDT
Module 2 Mini-Test due (50 points)	7/13/2018, 11:59pm EDT
Module 3 RP: Theory and Hypotheses due (20 points)	7/20/2018, 11:59pm EDT
Module 3 Mini-Test due (50 points)	7/20/2018, 11:59pm EDT
Module 4 RP: Variables and Descriptive Stats due (20 points)	7/27/2018, 11:59pm EDT
Module 4 Mini-Test due (50 points)	7/27/2018, 11:59pm EDT
Module 5 RP: Cross Tabs due (20 points)	8/3/2018, 11:59pm EDT
Module 5 Mini-Test due (50 points)	8/3/2018, 11:59pm EDT
Module 6 RP: Hypothesis Testing & Inferences due (20 points)	8/10/2018, 11:59pm EDT
Module 6 Mini-Test due (50 points)	8/10/2018, 11:59pm EDT
Final Research Project Due (100 points)	8/16/2018, 11:59pm EDT
Exit Survey due (25 points)	8/16/2018, 11:59pm EDT
Extra Credit Teaching Evaluation of Instructor due (25 points extra credit)	8/16/2018, 11:59pm EDT

PLS 201: INTRODUCTION TO METHODS OF POLITICAL ANALYSIS
Michigan State University — Online — July 2 – August 16, 2018

VIII. Course Outline:

Each module's lectures and mini-tests will be made available immediately after the close of the previous Module. Students can read the assigned materials, watch the lectures, take the mini-tests, and complete the Research Project segments at any time during the week, but all the Module tasks must be completed by the due date and time (Friday at 11:59pm) each week. The outline below is subject to changes as necessary to account for the unique dynamics of our class. In the event that changes are made, they will be announced with ample notice, sent via email, and/or documented on D2L.

Module 1: What is science and why do we do science? All Due by 7/6/2018, 11:59pm EDT

- Watch “Welcome and Course Overview” Lecture (~ 25 min)
- Complete Entry Survey on D2L (~ 15 min)
- Read Kida, Introduction - A Six-Pack of Problems (pdf on D2L) (~ 30 min)
- Watch Module 1:1 “Errors in Human Thinking” Lecture (~ 45 min)
- Read Kida, Chp.1 - Science vs. PseudoScience (~ 30 min)
- Watch Module 1:2 “Science vs. Pseudoscience” Lecture (~ 45 min)
- Watch Module 1:3 “Why do we do (political) science?” Lecture (~ 45 min)
- Take Module 1 Mini-Test (~ 60 min)

Module 2: What is the scientific research process? All Due by 7/13/2018, 11:59pm EDT

- Watch “Scientific Studies” by Last Week Tonight with John Oliver (~ 20 min) (*This comedy clip contains considerable profanity, irreverence for some individuals and groups' beliefs, and regular mentions of sexual acts. While this clip is not terribly explicit by modern standards, if you prefer not to be exposed to this clip you will not be required to do so, nor will you be evaluated on its content. Despite its vulgarity, this clip does offer useful information on the assigned topic, reinforcing important concepts.)
- Watch Module 2:1 “The Research Process” Lecture (~ 45 min)
- Read Wheelan, Naked Statistics Chp.1 – What’s the Point (~ 30 min)
- Watch Module 2:2 “Reliability & Validity” Lecture (~ 45 min)
- Watch Module 2:3 “Levels of Measurement” Lecture (~ 45 min)
- Take Module 2 Mini-Test (~ 60 min)
- Read “Dataset Selection & Research Question” Help Sheet (on D2L) (~ 15 min)
- Complete RP Part 1: Dataset Selection & Research Question, upload to D2L (~ 60 min)

Module 3: Descriptive Statistics All Due by 7/20/2018, 11:59pm EDT

- Read Wheelan, Naked Statistics Chp.2 – Descriptive Statistics (~ 30 min)
- Read Wheelan, Naked Statistics Chp. 3 – Deceptive Description (~ 30 min)
- Watch Module 3:1 “Descriptive Statistics I” Lecture (~ 45 min)
- Read Wheelan, Naked Statistics Chp. 4 – Correlation (~ 30 min)
- Watch Module 3:2 “Descriptive Statistics II” Lecture (~ 45 min)
- Watch Module 3:3 “Using Excel for Descriptive Statistics” Lecture (~ 30 min)
- Take Module 3 Mini-Test (~ 60 min)
- Read “Offer Theories & Identify Variables” Help Sheet (on D2L) (~ 15 min)
- Complete RP Part 2: Offer Theories & Identify Variables, upload to D2L (~ 90 min). Be sure to incorporate feedback on the prior segments of the RP.

PLS 201: INTRODUCTION TO METHODS OF POLITICAL ANALYSIS

Michigan State University — Online — July 2 – August 16, 2018

Module 4: Research Design All Due by 7/27/2018, 11:59pm EDT

- Listen to “How Do We Know What Really Works in Healthcare” Freakonomics podcast (~ 45 min)
- Watch Module 4:1 “Experiments vs. Observational Studies I” Lecture (~ 45 min)
- Watch Module 4:2 “Experiments vs. Observational Studies II” Lecture (~ 45 min)
- Read “The Immortal Life of Henrietta Lacks” (on D2L) (~ 30 min)
- Watch Module 4:3 “Experiments vs. Observational Studies III” Lecture (~ 30 min)
- Take Module 4 Mini-Test (~ 60 min)
- Re-watch Module 3:3 “Using Excel for Descriptive Statistics” Lecture if needed (~ 30 min)
- Read “Develop Hypotheses” Help Sheet (on D2L) (~ 15 min)
- Complete RP Part 3: Describe Variables & Develop Hypotheses, upload to D2L (~ 90 min). Be sure to incorporate feedback on the prior segments of the RP.

Module 5: Statistics, Sampling, and Polling All Due by 8/3/2018, 11:59pm EDT

- Read Wheelan, Naked Statistics Chp.8 – The Central Limit Theorem (~ 30 min)
- Read Wheelan, Naked Statistics Chp.9 – Inference (~ 30 min)
- Watch Module 5:1 “Samples and the CLT” Lecture (~ 45 min)
- Read Wheelan, Naked Statistics Chp.10 – Polling (~ 30 min)
- Watch Module 5:2 “Polling and Surveys” Lecture (~ 45 min)
- Take Module 5 Mini-Test (~ 60 min)
- Watch Module 5:3 “Creating Cross Tabs” Lecture (~ 45 min)
- Read “Creating Cross Tabs” Help Sheet (on D2L) (~ 15 min)
- Complete RP Part 4: Calculate Cross Tabulations for Variables, upload to D2L (~ 90 min). Be sure to incorporate feedback on the prior segments of the RP.

Module 6: Hypothesis Testing and Inferences All Due by 8/10/2018, 11:59pm EDT

- Watch Module 6:1 “Hypothesis Testing I” Lecture (~ 45 min)
- Watch Module 6:2 “Hypothesis Testing II” Lecture (~ 45 min)
- Read Wheelan, Naked Statistics Chp.11 – Regression (~ 30 min)
- Watch Module 6:3 “Regression” Lecture (~ 45 min)
- Take Module 6 Mini-Test (~ 60 min)
- Read “Hypothesis Testing & Inferences” Help Sheet (on D2L) (~ 15 min)
- Complete RP Part 5: Hypothesis Testing & Inferences, upload to D2L (~ 120 min). Be sure to incorporate feedback on the prior segments of the RP.

End of the Course Activities: All Due by 8/16/2018, 11:59pm EDT

- Review Research Project Titanic Sample on D2L (~ 20 min)
- Turn in Final Research Project containing all the components (RP 1 – 5) worked on throughout the modules, and adding Conclusion & Limitations Section (~ 120 min)
- Complete Exit Survey on D2L (~ 15 min)
- Complete Extra Credit Teaching Evaluation Survey (~ 10 min)

PLS 201: INTRODUCTION TO METHODS OF POLITICAL ANALYSIS

Michigan State University — Online — July 2 – August 16, 2018

IX. Course Policies and Procedures:

Online Classroom Decorum: Importantly, this is not a class where I will teach you *what* to think about politics, but rather a class to teach you *how* to think about politics. That said, politics can be controversial. And we will discuss controversial issues from time to time. I desire to create an online 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, Missed Mini-Tests: I expect students to make every effort to turn in assignments, take required mini-tests, and complete segments of the research project 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 the class, 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 turned in after the deadline that do not meet the aforementioned exceptions, we will apply a 25% 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 message us during our Online Chat Hours, email us, or set up an appointment to speak via phone or Skype. 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. Also, please note that all messages from us will be sent to your MSU email address. If you use another email address (e.g., Gmail), then you are responsible for setting up your MSU account to forward to that address. Please contact MSU IT Services Support if you have any questions about how to do this (help.msu.edu).

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 mini-test and research project 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.

If you have a question or concern regarding your performance on an assignment or mini-test, you should contact the individual responsible for grading that item. With the exception of arithmetic errors in calculating your score, all challenges must be presented in an email statement that concisely expresses why you believe your grade should be altered. This statement must reference the grading rubric (if there is one) to justify the grade change. All concerns – arithmetic or otherwise – relating to a specific assignment or test must be raised within one week of when the assignment/test was graded (the one-week clock starts when we publish the grade on D2L). After this one-week period, no grade challenges will be entertained. Also, please note that if you appeal a grade on an assignment

PLS 201: INTRODUCTION TO METHODS OF POLITICAL ANALYSIS

Michigan State University — Online — July 2 – August 16, 2018

or mini-test, the grade may go up *or* down. It will be treated as a new grade on the assignment / mini-test, and all aspects of the grade are open to reexamination.

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 (including “patchwriting”), 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 one week 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 am required to report my knowledge of the incident to the Title IX coordinator.