

**Pol S 301**  
**Introduction to Empirical Political Science Research**  
**SPRING 2019**  
**TR 11AM–12:20PM, ROSS HALL 0124**

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## Overview and Objectives

Political Science is an empirical discipline. This means that we apply the scientific method to generate and test theories about how the political world works, in order to improve our understanding of political phenomena. In this class, you will learn the tools necessary to think like a researcher.

In particular, you will learn to generate and apply abstract theories, derive and identify specific conditions under which predictions from these theories should hold, and evaluate whether these hypotheses are supported. This means that, rather than thinking of every election, war, economic crisis, or other political outcome of interest as a unique event, you will learn how to investigate which characteristics systematically make outcomes more or less likely. To do this, we will utilize statistical tools. You are expected to learn how statistics helps us understand the political world, and what are appropriate and inappropriate uses of statistics. You can expect that the tools learned in this class will help you better understand what you read and learn in other classes, assist in making you a more critical consumer of (political) information, as well as develop marketable skills for the future.

## Learning Outcomes

At the end of the course, students should be able to:

- Explain the fundamentals of social science.
- Identify the key elements of a theory and of hypothesis testing.
- Describe several ways of testing social scientific hypotheses.
- Apply these techniques to a particular problem.

## Required Texts

Kellstedt, Paul M. and Guy D. Whitten. 2018. *The Fundamentals of Political Science Research*, third edition. NY: Cambridge University Press.

Monogan, James E. III. 2015. *Political Analysis Using R*. New York: Springer. Download the book for free when on campus at <http://link.springer.com/book/10.1007/978-3-319-23446-5>, or by signing into the library's webpage, doing a search for the title, and clicking on online access.

We will be using the Top Hat ([www.tophat.com](http://www.tophat.com)) classroom response system in class. You will be able to submit answers to in-class questions using smartphones, tablets, laptops, or through text messaging. You can visit the Top Hat Overview [support.tophat.com/hc/en-us/articles/200019034-Top-Hat-Overview-Getting-Started](http://support.tophat.com/hc/en-us/articles/200019034-Top-Hat-Overview-Getting-Started) within the Top Hat Success Center which outlines how you can register for a Top Hat account, as well as provides a brief overview to get you up and running with the system. An email invitation to join your Top Hat space will be sent to you, but if you don't receive it, you can still create your student account at [www.tophat.com](http://www.tophat.com). You will be required to purchase a Top Hat license from the ISU Book Store or online in order to access any quizzes or questions your instructor creates in the Top Hat system. Should you require assistance with Top Hat at any time please contact the IT Solution Center at 515-294-4000 or [solution@iastate.edu](mailto:solution@iastate.edu).

## Grading

Grades are based on 2 exams (200 pts), a series of homework assignments (120 pts), a research project (140 pts), and in-class participation (40 pts). You are expected to complete all readings prior to class. Students who wish to do well in the class will attend and participate in class discussions. Final grades are rounded to the nearest whole number.

This class will introduce you to several statistical techniques and data management tools. You will use the statistical program **R** to analyze data for some of the homeworks and the semester-length data project. The Monogan workbook explains how to download **R**.

- Exams

Exams are each worth 100 points. Each exam focuses on the topics covered since the previous exam. If you need to miss an exam to participate in a university sponsored event, I expect at least two weeks advance notification. You must arrange with me to make up the work in a timely manner. If you are physically unable to contact me in advance (e.g., if you wake up extremely ill), you must contact me (via email or phone) as soon as possible and then bring some form of verification from a physician. Failure to complete an exam without appropriately notifying me results in zero credit for that exam.

- Homework

Homework is assigned on a weekly to bi-weekly basis from either the Kellstedt and Whitten text (K&W) or the Monogan workbook (MW). Each homework assignment is worth 15 points. There are 8 homework assignments which cover the material of the previous week. Assignments are due at the start of class on the listed due date. If a student is unhappy with their grade, they may submit their complaint in writing, explain the particular discrepancy, and recommend an appropriate recourse. The instructor will read the memo, re-read the disputed answer, and assign a grade. The new grade may be higher or lower than the original grade after the re-evaluation of the answer. For the applied statistics, all data sets and code to conduct the analysis presented in the MW text are available at <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/ARKOTI>, as well as in a link in the preface of MW and at the start of each chapter.

- Research Project

There is a five-part research project: the first 4 parts are worth 10 points each, and the last part is worth 100 points. Please see the *Research Project* document for additional information.

- In-class Participation

All in-class questions are administered using Top Hat classroom response system (see section on required materials above). Top Hat questions are intended to monitor effort and understanding; 90% of the value of each question is awarded for attendance and 10% for giving the correct answer. Since each Top Hat question makes up only a small portion of the final grade (40pts total, 40-50 questions over the semester, less than 1pt per question), missing only one or two classes will not make a meaningful difference for a student's grade. Absences are considered excused only for university-approved activities (conditional on **advance** written warning from the relevant department) or a major life-altering event, such as a serious illness or a death in the family. Missed clicker questions, due to any other reason, result in a score of 0.

- Extra Credit

A three-stage guided data collection project can be completed for up to 30 points of extra credit. The first stage is to commit to a project (due Feb 8). The second stage is to turn in 25% of the targeted cases for review and feedback (due Apr 5). The final stage is the turn in the rest of the targeted cases (due May 6). You must complete all three stages in order to receive any extra credit.

**Grading Scale:**

A	93-100	C	73-76
A-	90-92	C-	70-72
B+	87-89	D+	67-69
B	83-86	D	63-66
B-	80-82	D-	60-62
C+	77-79	F	≤ 59

**Administrative Issues**

*Academic Dishonesty:* Plagiarism, any form of cheating, or other conduct proscribed by the Student Handbook, will result in an “F” grade for the course and be referred to the Dean of Students.

*Accommodations:* Please discuss any special needs with the teaching staff at the start of the semester, for example to request reasonable accommodations if an academic or work requirement conflicts with your religious practices and/or observances. Those seeking accommodations based on disabilities should provide a completed Student Academic Accommodation Request form from the Disability Resources office (Student Services Building 1076, phone 515-294-7220). The Dean of Students Office or the Office of Equal Opportunity and Compliance may be able to provide additional assistance.

*Harassment and Discrimination:* Any concerns about prohibited discrimination or harassment based on race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, genetic information, or status as a veteran should be brought to the instructor, Student Assistance (515-294-1020 or [dso-sas@iastate.edu](mailto:dso-sas@iastate.edu)), or the Office of Equal Opportunity and Compliance (515-294-7612).

I reserve the right to modify the syllabus to reflect the pace of the course.

## Course Outline

### **Jan 14: Introduction**

Reading: K&W Ch 1.

Supplemental:

- *FiveThirtyEight*. Mohawks, Faux-hawks And Macklemores: The Top-Heavy Hairdos of the World Cup. Available on Canvas.
- Dion, Douglas. A Retrospective on Forecasting the 2016 Election. Available on Canvas.
- Clarke, Kevin A., and David M. Primo. 2007. Modernizing Political Science: A Model-based Approach. *Perspectives on Politics* 5(4): 741–753.
- Penn, Elizabeth Maggie, 2008. Citizenship Versus Ethnicity: The Role of Institutions in Shaping Identity Choice. *Journal of Politics* 70(4): 956–973.

### **Jan 21: Theory Construction**

Reading: K&W Ch 2.

Homework 1: K&W Ch 2–Exercises 1-3, 7 (due Jan 29).

Supplemental:

- Bueno De Mesquita, Bruce, James D. Morrow, Randolph M. Siverson, and Alastair Smith. 1999. An Institutional Explanation of the Democratic Peace. *American Political Science Review* 93(4): 791–807.
- McDermott, Rose. 2004. The Feeling of Rationality: The Meaning of Neuroscientific Advances for Political Science. *Perspectives on Politics* 2(4): 691-706.
- Sartori, Anne E. 2002. The Might of the Pen: A Reputational Theory of Communication in International Disputes. *International Organization* 56(1): 121–149.

### **Jan 28: Understanding Causality**

Reading: K&W Ch 3; MW Ch 1-2.

Homework 2: K&W Ch 3–Exercises 3-4; MW Ch 1–Practice Problems 1-2 (due Feb 5).

Research Project: Part 1 (due Feb 8).

Supplemental:

- Keele, Luke J., and Rocio Titiunik. 2015. Geographic Boundaries as Regression Discontinuities. *Political Analysis* 23(1): 127–155.
- McNulty, John E., Conor M. Dowling, and Margaret H. Ariotti. 2009. Driving Saints to Sin: How Increasing the Difficulty of Voting Dissuades Even the Most Motivated Voters. *Political Analysis* 17(4): 418–434.
- Signorino, Curtis S. 2003. Structure and Uncertainty in Discrete Choice Models. *Political Analysis* 11(4): 316–344.

## Feb 4: Research Design

Reading: K&W Ch 4.

Supplemental:

- Braumoeller, Bear F., and Gary Goertz. 2000. The Methodology of Necessary Conditions. *American Journal of Political Science* 44(4): 844-858.
- Gibler, Douglas M., and Scott Wolford. 2006. Alliances, then Democracy: An Examination of the Relationship between Regime Type and Alliance Formation. *Journal of Conflict Resolution* 50(1): 129–153.

## Feb 11: Exam 1 and Measurement

Take Exam 1 at Testing Center between 9am Feb 11 to 6:30pm Feb13.

No lecture on Tuesday, Feb 12.

Reading: K&W Ch 5; MW Ch 2-3.

Homework 3: K&W Ch 5–Exercises 1-3; MW Ch 3–Practice Problems 1-2 (due Feb 19).

Supplemental:

- Chyzh, Olga. 2014. Can You Trust a Dictator: A Strategic Model of Authoritarian Regimes Signing and Compliance with International Treaties. *Conflict Management and Peace Science* 31(1): 3–27.
- Ditonto, Tessa M., Richard R. Lau, and David O. Sears. 2013. AMPing Racial Attitudes: Comparing the Power of Explicit and Implicit Racism Measures in 2008. *Political Psychology* 34(4): 487–510.
- Lo, James, Sven-Oliver Proksch, and Thomas Gschwend. 2014. A Common Left-Right Scale for Voters and Parties in Europe. *Political Analysis* 22(2): 205–223.

## Feb 18: Descriptive Statistics

Reading: K&W Ch 6; MW Ch 4.

Homework 4: MW Ch 4–Practice Problems 1-5 (due Feb 26).

Research Project: Part 2 (due Mar 1).

Supplemental:

- Westbrooke, Ian. 1998. Simpson’s Paradox: An Example in a New Zealand Survey of Jury Composition. *Chance* 11(2): 40–42.

**Feb 25: Making Inferences**

Reading: K&W Ch 7.

Homework 5: MW Ch 3–Practice Problems 3(a-c), 4 (due Mar 5).

Supplemental:

- 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): 515–530.
- Hassid, Jonathan. 2011. Four Models of the Fourth Estate: A Typology of Contemporary Chinese Journalists. *China Quarterly* 208: 813–832.

**Mar 4: Making Inferences**

Reading: K&W Ch 7.

Supplemental:

- Alford, John R., Carolyn L. Funk, and John R. Hibbing. 2005. Are Political Orientations Genetically Transmitted?. *American Political Science Review* 99(2): 153–167.
- Lyall, Jason. 2009. Does Indiscriminate Violence Incite Insurgent Attacks? Evidence from Chechnya. *Journal of Conflict Resolution* 53(3): 331–362.

**Mar 11: Making Inferences and Exam 2**

Take Exam 2 at Testing Center between 9am Mar 11 to 6:30pm Mar 14 (Note: Cannot take exam on Friday).

No lecture on Thurs, Mar 13.

Research Project: Part 3 (due Mar 15).

**Mar 18: No Class—Spring Break****Mar 25: Bivariate Hypothesis Testing**

Reading: K&W Ch 8; MW Ch 5 pp. 63-70.

Homework 6: MW Ch 5–Practice Problems 1, 2 (due Apr 2).

Supplemental:

- Dion, Douglas. 1998. Evidence and Inference in the Comparative Case Study. *Comparative Politics* 30(2): 127–145.
- Biddle, Stephen. 2001. Rebuilding the Foundations of Offense-Defense Theory. *Journal of Politics* 63(3):741-774.

## Apr 1: Bivariate Hypothesis Testing

Reading: MW Ch 5 pp. 71-76.

Homework 7: MW Ch 5–Practice Problems 3-4(a) (due Apr 9).

Research Project: Part 4 (due Apr 12).

Supplemental:

- Levy, Jack S., and William R. Thompson. 2010. Balancing on Land and at Sea: Do States Ally Against the Leading Global Power? *International Security* 35(1): 7–43.
- Madsen, Douglas. 1985. A Biochemical Property Relating to Power Seeking in Humans. *American Political Science Review* 79(2): 448–457.

## Apr 8: Simple Regression

Reading: K&W Ch 9.

Homework 8: Simple Regression handout (available on Canvas) (due Apr 16).

Supplemental:

- Achen, Christopher H. 1978. Measuring Representation. *American Journal of Political Science* 22(3): 475–510.
- Lewis-Beck, Michael S., and Tom W. Rice. 1982. Presidential Popularity and Presidential Vote. *Public Opinion Quarterly* 46(4): 534–537

## Apr 15: Multiple Regression

Reading: K&W Ch 10; MW Ch 6 pp. 79-88.

Supplemental:

- Finkel, Steven E., and Amy Erica Smith. 2011. Civic Education, Political Discussion, and the Social Transmission of Democratic Knowledge and Values in a New Democracy: Kenya 2002. *American Journal of Political Science* 55(2): 417-435.
- Peterson, David AM, and Paul A. Djupe. 2005. When Primary Campaigns Go Negative: The Determinants of Campaign Negativity. *Political Research Quarterly* 58(1): 45–54.
- Vercellotti, Timothy, and David Andersen. 2009. Voter-identification Requirements and the Learning Curve. *PS: Political Science & Politics* 42(1): 117–120.

## Apr 22: Multiple Regression

Reading: K&W Ch 11; MW Ch 6 pp. 89-96.

Research Project: Part 5 (electronic copy due Apr 30 by 11am).

Supplemental:

- Brambor, Thomas, William Clark, and Matt Golder. 2006. Understanding Interaction Models: Improving Empirical Analyses. *Political Analysis* 14: 63-82.
- Urbatsch, R. 2012. The Paradox of Voting Intelligently. *Public Choice* 150(3-4): 511–524.



**Apr 29: Posters**

Poster Presentation Week (Plus One). Bring poster and present on assigned day.

**May 6: Finals Week**

Poster Presentation Week (Plus One). Bring poster and present on assigned day.

Completed extra credit project due May 6.