

POLS 208: Political Science Methods

Emory University, Fall 2013

August 29, 2013 (v. 2)

Jeffrey Arnold

Office: Tarbutton Hall 217B

Office Hours: T 1–2pm, Th 4–5 pm

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<http://jrno1d.me>

Places & Times

Class	T, Th 2:30–3:45 pm	White Hall 206
Labs	T 4–4:50, 5–5:50, 6–6:50 pm	Tarbutton 120A Sibia
	W 4–4:50, 5–5:50, 6–6:50 pm	Tarbutton 120A Arrington
	Th 4–4:50, 5–5:50, 6–6:50 pm	Tarbutton 120A Morgan

Teaching Assistants

Nancy Arrington	n.b.arrington@emory.edu	11:30 am–12:30 pm
Brandon Sibia	bsibili@emory.edu	W 1-2 pm
Rick Morgan	rkmorgan208ta@gmail.com	T 4-5 pm

Offices are in 120C Tarbutton.

Course Description and Objectives

This course is designed to introduce students to the style of analytic thinking required for research in the social sciences; the concepts and procedures used in the conduct of empirical political science research; and the use of computers for analysis of quantitative social science data. In short, this course teaches a set of skills that are essential for both understanding the research you will encounter in later political science classes, and being able to produce high-quality original research of your own. Beyond

simply learning how to be a more critical participant in public affairs, by the end of the semester, you will also be better-prepared for career opportunities using statistical tools and the products thereof.

We will cover the principles of the scientific method as applied to the study of politics, emphasizing an approach to understanding politics that uses generalizing theory and testable hypotheses. The first part of the course addresses critical issues in the design of empirical tests of theories about political phenomena, including sample selection, concept definition and measurement, and types of data collection. The remainder of the course focuses on a variety of techniques for analyzing quantitative political data, from simple descriptive statistics, data visualization, to tabular data analysis, tests of bivariate association, and multiple linear regression models.

This is an applied course that draws on dozens of real political science applications and research examples when introducing each concept and technique. The course strongly favors practice (e.g., choice of appropriate statistical procedure, diagnostics, interpretation) over theory (mathematical derivations and proofs). You do not need any more math background than high school algebra for this course, and you will not be expected or required to memorize any mathematical formulas. Instead, you will learn real, practical skills in using statistical software, identifying which approaches to take for different kinds of problems, and interpreting the sometimes conflicting and confusing results reported in both academic journals and in the popular press.

POLS 208 is mandatory for majors in Political Science or International Studies at Emory University. The department strongly encourages all students to take this course during their first two years to prepare themselves for upper-level coursework.

Grading and Evaluation

Homework	60%	11 assignments; lowest one dropped
Midterm	20%	
Final	20%	

Books

The following texts are **required** for this course:

- Alan Agresti and Barbara Finlay. 2009. *Statistical methods for the social sciences*. 4th. Pearson Prentice Hall
- Paul M. Kellstedt and Guy D. Whitten. 2013. *The Fundamentals of Political Science Research*. 2nd. Cambridge University Press

For both textbooks, the previous edition is largely compatible and can be used.

Note that we may circulate additional (mostly optional) readings during the term. These readings will be available on Blackboard.

Policies

Attendance and class preparation

Attendance is mandatory in this class. This includes coming to class on time. The exams will cover both what is included in the readings and what is taught in lecture. Since not everything I discuss in class will be in the course reading material, you will be at a significant disadvantage if you miss class. You are also responsible for consulting the syllabus and reading all of the assigned chapters and articles prior to each class. Doing so will considerably increase the value to you of the class meetings. You must attend your assigned lab session.

Missed exams

Missed exams may be re-taken under the following circumstances only:

1. Death in the immediate family (parent, spouse, sibling) within two weeks before the exam.
2. Participation in an official Emory-sponsored academic or sporting event.
3. Unforeseeable medical emergency affecting yourself, your spouse, or your child (something beyond feeling under the weather—car accident, major sickness, or the like).

In the case of reasons (1) or (2), you must give me at least 24 hours advance notice (such as an email or phone call) that you will miss the exam or it may not be made up. I may require supporting documentation. Conflicts with a work schedule and leaving for a non-academic trip or vacation are not an excuse to miss an exam or any other assignment in this class; I suggest that you consult the course schedule in advance and drop the course if you cannot be present for the classes and assignments.

Late work

All work is late if submitted after the date and time specified as the due date. Assignments handed in late will result in a penalty of 20 percentage points per day (from 90% to 70%, and so on). Assignments handed in more than three calendar days late will receive a grade of zero. To ensure fairness, this policy will be strictly enforced. Exceptions under the conditions above may be made, but will require at least 24 hours advance permission from the instructor.

Academic misconduct and Collaboration

Students are expected to follow the Emory College Honor Code at all times, particularly with respect to issues of honesty and attribution; for more information, please consult http://www.college.emory.edu/current/standards/honor_code.html. Any suspected academic misconduct—including possible instances of plagiarism—will be handled exactly according to the procedures outlined in the Honor Code.

Students may discuss homework assignments in pairs or small groups, however, all work must be individually written and all results and figures individually generated. You may give each other advice or help point out coding errors, but in the end you must carry out the work yourself. Occasionally, a student will email their work to friends to show how they completed a problem. If, as sometimes happens, a friend simply copies text or graphs into his or her own paper, both students will be cited for academic honesty violations.

Office Hours and Email Policy

The large size of this class makes it necessary for me to maintain a very strict policy with respect to email. If you have questions about the class that are of a procedural nature—for example, regarding attendance, late assignments, due dates, or class schedules—you may email your lab TA or me and expect a response within one working day. Unfortunately, however, we can not answer any questions over email that are of a substantive nature concerning the class material, assignments, or exams. Substantive issues are best discussed in person. Please stop by the TAs' or my office hours or email your TA or me to make an appointment.

Peer Tutoring

For additional help outside of class, I strongly encourage you to make use of Emory's Peer Tutoring program, EPASS. More information about this program, as well as instructions on how to schedule an appointment, may be found at college.emory.edu/home/academic/learning/tutoring. EPASS tutors are limited, so it is best to plan ahead, especially closer to the end of the semester.

Laptop policy

The use of laptop computers during lecture meetings is not allowed. However, you should certainly bring your laptop to lab/review sessions.

Lecture Slides

Lecture slides will be made available before each lecture by the morning of the day of the lecture through the class Blackboard site. However, the lecture slides will not cover all the material from class and are not a substitute for notes.

Computing

Many data analysis problems require computation and we will be using a free statistical software package called R and a frontend to that package called RStudio. Using a free package allows you to work on your own computers as opposed to being shackled to the labs. You should attend all classes and recitations to learn how to use R for each assignment and budget time to trial and error as you work. Over the course of the term, we will also produce notes that will help you complete specific tasks in R. This class, though, is not a test of your R ability and you should always feel free to ask the professor or teaching assistant for help.

Class Schedule

Class schedule and the assigned readings for each lecture are found below. During the semester, the lecture schedule may be adjusted according to the actual progress of the class and some assigned readings may be replaced by others. If these are to happen, you will be given an advance notice during lectures.

Week 1

Thursday, August 29: First meeting. Introduction/syllabus review.

Week 2

Tuesday, September 3: The scientific study of politics. Research questions, theories, concepts, and hypotheses.

- Kellstedt and Whitten, Chapters 1 and 2.
- Agresti and Finlay, Chapter 1.

Thursday, September 5: Research design I: the logic of experimentation and causal inference.

- Kellstedt and Whitten, Chapter 3 and 4.1–4.2.
- Alan S. Gerber and Donald P. Green. 2001. “Do Phone Calls Increase Voter Turnout?: A Field Experiment.” *The Public Opinion Quarterly* 65 (1): pp. 75–85

- Robert M. Bond et al. 2012. “A 61-million-person experiment in social influence and political mobilization.” *Nature* 489, no. 7415 (September): 295–298

Week 3

Tuesday, September 10: Research design II: non-experimental large-N designs.

- HW #1 Due
- Kellstedt and Whitten, Chapter 4.3–4.4.
- James H. Fowler. 2008. “The Colbert Bump in Campaign Donations: More Truthful than Truthy.” *PS: Political Science and Politics* 41 (3): pp. 533–539

Thursday, September 12: Research design III: small-N designs, case selection and inference.

- Ashutosh Varshney. 2001. “Ethnic Conflict and Civil Society: India and Beyond” [in English]. *World Politics* 53 (3): pp. 362–398
- Barbara Geddes. 1990. “How the Cases You Choose Affect the Answers You Get: Selection Bias in Comparative Politics.” *Political Analysis* 2 (1): 131–150

Week 4

Tuesday, September 17: Measurement: levels of measurement, reliability, and validity.

- HW #2 Due
- Kellstedt and Whitten, Chapter 5.
- Agresti and Finlay, Chapter 2.1.

Thursday, September 19: Data collection, survey design, and sampling.

- Agresti and Finlay, Chapter 2.2–2.5.

Week 5

Tuesday, September 24: Descriptive statistics and visualizing data I.

- HW #3 Due
- Agresti and Finlay, Chapter 3.1–3.4.
- Kellstedt and Whitten, Chapter 6.

Thursday, September 26: Descriptive statistics and visualizing data II.

- Agresti and Finlay, Chapter 3.7.
- Kellstedt and Whitten, Chapter 6. (Re-read)

Week 6

Tuesday, October 1: Probability distributions.

- HW #4 Due
- Agresti and Finlay, Chapter 4.1–4.3.

Thursday, October 3: Sampling distributions.

- Kellstedt and Whitten, Chapter 7.
- Agresti and Finlay, Chapter 4.4–4.7.

Week 7

Tuesday, October 8: Pre-Midterm Review.

- HW #5 due.

Thursday, October 10: MIDTERM

Week 8

Tuesday, October 15: No class; Fall break

Thursday, October 17: Inference from samples, confidence intervals

- Kellstedt and Whitten, Chapter 8.1–8.3.
- Agresti and Finlay, Chapter 5.

Week 9

Tuesday, October 22: Hypothesis testing

- Agresti and Finlay, Chapter 6.

Thursday, October 24: Population difference in means

- Agresti and Finlay, Chapter 7.1–7.3
- Kellstedt and Whitten, Chapter 8.1–8.3, 8.4.2.

Week 10

Tuesday, October 29: The chi-square test of independence.

- HW #6 Due
- Kellstedt and Whitten, Chapter 8.4.1.
- Agresti and Finlay, Chapter 8.1–8.2.

Thursday, October 31: Correlation and scatter plots.

- Kellstedt and Whitten, Chapter 8.4.3.
- Agresti and Finlay, Chapter 3.5 and 9.4.

Week 11

Tuesday, November 5: Linear modeling: ordinary least squares.

- HW #7 Due
- Kellstedt and Whitten, Chapter 9.1–9.3.
- Agresti and Finlay, Chapter 9.1–9.2.

Thursday, November 7: The linear regression model: fit and diagnostics.

- Kellstedt and Whitten, Chapter 9.4–9.5 and 11.5.
- Agresti and Finlay, Chapter 9.3–9.7.

Week 12

Tuesday, November 12: The multiple linear regression model.

- HW #8 Due
- Kellstedt and Whitten, Chapter 10.1–10.4.
- Agresti and Finlay, Chapter 10 and 11.1.
- Alan I. Abramowitz. 2008. "Forecasting the 2008 Presidential Election with the Time-for-Change Model." *PS: Political Science & Politics* 41 (04): 691–695

Thursday, November 14: Interpreting and communicating regression estimates.

- Kellstedt and Whitten, Chapter 10.5–10.8.
- Agresti and Finlay, Chapter 11.2–11.3.

Week 13

Tuesday, November 19: Regression modeling using categorical independent variables.

- HW #9 Due
- Kellstedt and Whitten, Chapter 11.1–11.3.
- Agresti and Finlay, Chapter 13.2–13.3.

Thursday, November 21: When a relationship is non-linear: variable transformations.

- Kellstedt and Whitten, Chapter 11.6.
- Agresti and Finlay, Chapter 11.9 and 14.5–14.6.

Week 14

Tuesday, November 26: Dichotomous dependent variable models: probit and logit

- HW #10 Due
- Kellstedt and Whitten, Chapter 11.4.
- Agresti and Finlay, Chapter 15.1–15.2.

Thursday, November 28: No class; Thanksgiving break

Week 15

Tuesday, December 3: TBD

Thursday, December 5: TBD

Week 16

Tuesday, December 10 : Final review.

- HW #11 Due

Friday, December 13 : FINAL EXAM, 8–10:30 am.

Office for Undergraduate Education - Information for Syllabus - Fall 2013

- The Office for Undergraduate Education (OUE) central office is located in White Hall 300
- Please visit or call 404.727.6069 with questions about academic affairs, concerns or policies.
- All Emory College of Arts and Sciences policies may be found in the College Catalog:
<http://college.emory.edu/home/academic/catalog/index.html>
- For a full list of Religious Holidays can be found here:
<http://www.religiouslife.emory.edu/pdf/Religious%20Holidays%202013-14.pdf>

Important Fall 2013 Dates

- August 28: First day of classes
- September 4: Add/Drop/Swap ends 11:59pm
- September 11: Last day to change S/U or Grading option
- October 14-15: Fall Break
- October 18: Last day for withdrawal without penalty (all students)
- November 15: Last day for withdrawal without penalty (1st year, Transfer, Oxford ONLY)
- November 28-29: Thanksgiving Holiday Break
- December 10: Last day of classes
- December 11: Reading Day(s)
- December 12-18: Final Exam Period

Academic Advising and Class Deans

If you have any academic concerns or questions about Emory College of Arts and Sciences policies, you should first meet with an OUE academic adviser. If an academic adviser is unavailable to meet with you, you may meet with an OUE dean during open hours.

- OUE Academic Adviser appointments: Visit White Hall 300 or call 404.727.6069
- Deans' Open Hours: <http://college.emory.edu/home/administration/office/undergraduate/hours.html>

Academic Support

There are a range of resources available to Emory undergraduates designed to enrich each student's educational experience.

- Visit <http://college.emory.edu/advising> for a list of support programs and appointment directions

Access and Disability Resources

Students with medical/health conditions that might impact academic success should visit Access, Disability Services and Resources (ADSR formerly the Office of Disability Services, ODS) to determine eligibility for appropriate accommodations. Students who receive accommodations must present the Accommodation Letter from ADSR to your professor at the beginning of the semester, or when the letter is received.

Attendance Policies (Absences and Absences from Examinations)

- Absences: Although students incur no administrative penalties for a reasonable number of absences from class or laboratory, they should understand that they are responsible for the academic consequences of absence and that instructors may set specific policies about absence for individual courses.
- Absences from Examinations: A student who fails to take any required midterm or final examination at the scheduled time may not make up the examination without written permission from a dean in the Office for Undergraduate Education. Permission will be granted only for illness or other compelling reasons, such as participation in scheduled events off-campus as an official representative of the University. A student who takes any part of a final examination ordinarily will not be allowed to defer or retake that final. Deferred examinations must be taken during the student's next semester of residence by the last date for deferred examinations in the academic calendar or within twelve months if the student does not re-enroll in the college. Failure to take a deferred examination by the appropriate deadline will result automatically in the grade IF or IU.

Honor Code

Upon every individual who is a part of Emory University falls the responsibility for maintaining in the life of Emory a standard of unimpeachable honor in all academic work. The Honor Code of Emory College is

based on the fundamental assumption that every loyal person of the University not only will conduct his or her own life according to the dictates of the highest honor, but will also refuse to tolerate in others action which would sully the good name of the institution. Academic misconduct is an offense generally defined as any action or inaction which is offensive to the integrity and honesty of the members of the academic community.

- The Honor Code, a list of offenses and the Honor Council process may be found; http://college.emory.edu/home/academic/policy/honor_code.html