

**OXFORD COLLEGE OF EMORY UNIVERSITY  
POLITICAL SCIENCE 308: POLITICAL SCIENCE METHODS**

SPRING 2010  
TU & TH 4:15-5:30  
(HUM HALL 206)

PROFESSOR: KATIE VIGILANTE  
OFFICE: 214C SENEY HALL  
OFFICE HOURS: M & W (3:30-4:30) AND BY APPOINTMENT  
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*A bad statistic is harder to kill than a vampire*  
- Joel Best (Author, 'Stat-Spotting and Damned Lies and Statistics')

**COURSE DESCRIPTION & OBJECTIVES**

This is a course on social science research methods applied to political phenomena. POLS 308 is a required course for all students majoring in Political Science or International Studies at Emory University.

The course is designed to introduce students to:

1. The style of analytic thinking required for research in the social sciences (the *scientific method*).
2. The concepts and procedures used in the conduct of empirical research in political science (*statistics*).
3. The use of computers for analysis of quantitative social science data (*stata software*©).

Our objective is to give you a foundation in research design and empirical methods so you can become an informed student of public affairs and specifically, of research reported in major journals in political science. Additionally, we want to provide you practice in data analysis skills as a means of introduction to political science methods for your own research.

Our focus will be on quantitative analysis, which depends on a dreaded area for many students: **STATISTICS**.<sup>1</sup> That's right, if you want to analyze data you will need to know the variety of techniques used to understand and evaluate those data: **statistics**.

We focus on a variety of statistics, from simple descriptive statistics and graphs, to tests of bivariate association, to a basic introduction to multivariate analysis

You do not need any more math background than high school algebra. Moreover, we will have a math review session.

For statistical software, we will use *Stata*®, perhaps the most popular package among political scientists. It is installed in computers in Pierce 206 and Kaliedescope Lab; additionally, you can purchase it cheaply for home use as well. A student version is recommended for the course, costing 45.00.

## STATISTICAL COMPUTING SUPPORT

We have a license agreement through Emory and Stata Corp. to run 20 stata sessions at a time (from either mac or pc) from any computer lab on campus. You can also purchase a personal copy of Stata at a reduced price; the program is relatively affordable, as these things go, and we have made provisions for you to purchase it at a discount if you wish to purchase it (less than \$100 for a one-year license). To obtain the discount, you must call the Stata Corporation at 800-782-8272, saying that you are part of the "GradPlan III" for Emory University, if you want to place an order; or go to <http://www.stata.com/order/new/edu/gradplans/gp-campus.html>.

## REQUIREMENTS

Grades in the course will be based on the following items:

%	Graded Item	Description
20	Homework	Weekly HW—CONSULT SYLLABUS EVERY DAY!
25	Midterm exam	In-class MARCH 4
30	Final exam	MAY 5 (2-5pm)
25	Research Report	Due in-class APRIL 27

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<sup>1</sup> Also referred to as 'sadistics', 'the things that are 'killing me', 'torture devices' ad infinitum

Successful completion of this course requires not only that a student learn the substance of research methods and data analysis, but also that he or she learn associated practical skills. The midterm and final examinations will each include questions demanding knowledge of details of basic Stata commands and output. To this end, although the course's main meeting times are Tues and Thurs, we will often meet on Friday afternoons, as a whole class, to hold "lab sessions" as well. These Friday sessions will not generally have new material; instead, they are for review of the material of the week, homework assignments, computer programming questions, etc. Please set the Friday time slot aside for this course.

## **READING MATERIALS**

There are two textbooks for this class:

- Janet Buttolph Johnson and H. T. Reynolds, with Jason D. Mycoff, *Political Science Research Methods*, 6<sup>th</sup> ed. (Washington, DC: CQ Press, 2008).
- Philip H. Pollock III, *A Stata Companion to Political Analysis* (Washington, DC: CQ Press, 2006).

These books are available in the bookstore.

**ALL OTHER ASSIGNED READINGS ARE STORED IN BLACKBOARD IN  
"COURSE DOCUMENTS"**

## **COURSE OUTLINE**

Jan 14 (Th): Introduction: Political Science?

### **HW (1): RESEARCH QUESTIONS**

Jan 19 (Tu): The scientific method and the study of politics  
Johnson and Reynolds (herein J&R), Ch. 1 & 2

Jan 21 (Th): Introduction to Statistics/Math Review

### **HW (1) DUE**

### **HW (2) STATISTICS HW (FUN AND INFORMATIVE)**

Jan 26 (Tu): Research Design Part I: Hypotheses, Concepts, and Variables

- J&R Ch. 3
- Reread Examples from J&R Ch. 1

Jan 28 (Th): Research Design Part II: Measurement

- J&R Ch. 4 & Pollock Ch. 1
- Jeffrey A. Segal and Albert D. Cover, "Ideological Values and the Votes of US Supreme Court Justices," *American Political Science Review* 83 (June 1989), 557-564

**HW (2) DUE**

**HW (3) POLLACK CH. 1 EXERCISES**

Feb 2 (Tu): Research Design Part III: Experimental versus Non Experimental

- J&R Ch. 5
- Alan S. Gerber and Donald P. Green, "Do Phone Calls Increase Voter Turnout? A Field Experiment," *Public Opinion Quarterly* 65 (Spring 2001), 75-85

Feb 4 (Th): The Literature Review: What is it? Why do it? Where do research topics come from? How do I begin?

- J&R Ch. 6

**HW (3) DUE**

**HW (4) RESEARCH QUESTIONS REFINED**

Feb 9 (Tu): Library Visit and Information Session for Source Collection for your topics  
Meet at Library-**ATTENDANCE IS MANDATORY**

Feb 11 (Th): Presenting Data and Data Distributions; Measures of Central Tendency

- J&R CH. 11 (pp. 351-383) & Pollock Ch. 2

**HW (4) DUE**

**HW (5): POLLOCK CH. 2 EXERCISES & BIBLIOGRAPHY**

Feb 16 (Tu): Data transformations and graphing  
J&R Ch. 11 (from pp. 383-393)

Feb 18 (Th): Variability: Measures of Dispersion (which Measures do we use when?)  
J&R Ch. 11 (pp. 360-383)

### **HW (5) DUE**

### **HW (6) HYPOTHESES**

Feb 23 (Tu): STATA TIME (**ATTENDANCE MANDATORY**)  
Meet in Kaliedescope Lab during class time  
Pollock Ch. 3 & 4

Feb 25 (Th): Statistical Inference & Hypothesis Testing  
J&R Ch. 11 (pp. 393-425)  
Pollock Ch. 5

Mar 2 (Tu): Hypothesis Workshop

### **HW (6) HYPOTHESES DUE**

Mar 4 (Th): **MIDTERM EXAM**

Mar 8-12: **SPRING BREAK**

Mar 16 (Tu): Bivariate analysis I: comparing means with t-tests  
- J&R Ch. 12 (pp. 426-431)  
- Pollock Ch. 6

Mar 18 (Th): Bivariate analysis II: crosstabs and the chi-squared test  
- J&R Ch. 12 (pps. 431-462)  
- Pollock Ch. 7

### **HW (7) POLLOCK CH. 6 & 7 EXERCISES**

Mar 23 (Tu): Bivariate analysis III: Correlation and Regression  
- J&R Ch. 12 (pps. 477-498)

Mar 25 (Th): Bivariate Analysis: Regression

- Pollock, Ch. 8 (stop p. 147)

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**HW (7) DUE**

**HW (8) POLLOCK CH. 8 EXERCISES**

Mar 30 (Tu): Multivariate Analysis: Analysis of Categorical Data

J&R Ch. 13 (pp. 503-514)

Pollock, Ch. 8 (complete)

April 1 (Th): Multivariate Analysis: Multiple Regression with Dummy Variables

J&R Ch. 13 (pp. 514-526)

Pollock Ch. 9 (to page 164)

**HW (8) DUE**

**HW (9) Pollock Ch. 9 exercises (Data and Methods Due next!)**

Apr 6 (Tu): Multivariate Analysis: Multiple Regression and Interaction Effects

Pollock Ch. 9 (complete)

Apr 8 (TH): **PROFESSOR OUT**

**Data and Methods Proposed for Hypothesis Testing DUE**

Apr 13 (Tu): Multivariate Analysis: Logistic Regression

- J&R Ch. 13 (pp. 526-549)

- Pollock Ch. 10

Apr 15 (Th): Multivariate Analysis: Logistic Regression Continued

**HW (9) DUE and Data and Methods!**

Apr 20-22: In-Class Lab (Attendance Mandatory)  
J&R Ch. 14

**Rough Drafts/Edits**

Apr 27 (Tu): Reports Due: Exam Prep Handout

May 6 (W): **FINAL EXAM (2-5PM)**