# OXFORD COLLEGE OF EMORY UNIVERSITY Political Science 208: Political Science Methods

#### **SPRING 2011**

M&W 2-3:15 SENEY 310

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Office Hours: M&W: 11-12:30 & 4-5PM (or 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 Objectives

This is a course on social science research methods applied to political phenomena. POLS 208 is a <u>required course</u> for all students majoring in Political Science or International Studies at Emory University.

The course is designed to introduce students to:

The style of analytic thinking required for research in the social sciences (the scientific method).

- 1. The concepts and procedures used in the conduct of empirical research in political science (*statistics*).
- 2. The use of computers for analysis of quantitative social science data (stata software©).

# Course Description

We aim to give you a foundation in research design <u>and</u> 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 accessible through <u>any public computer</u> on campus. Directions for accessing stata and the data sets are under the "stata tab" on our BLACKBOARD class conference

#### 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, 2010).

These books are available in the bookstore.

All other assigned readings are stored in BLACKBOARD in "course documents"

#### Requirements

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

%	Graded Item	Description
20	Homework	(Pollock workbook pages with stata log files; research
		report components electronically)
25	Midterm exam	
25	Final exam	
30	Research Report	

 $^{1}$  Also referred to as 'sadistics', 'the things that are 'killing me', 'torture devices' ad infinitem

# Class Readings and HW

# Jan 12 (W)

Introduction: Political Science a Science?

What are viable research questions?

HW:

Come up with 3 research questions

# Jan 19 (W)

Research Design Part I: Research Questions, Theories v. Hypotheses J&R Ch. 1 & 2

# **HW DUE:**

3 Research Questions

# Jan 24 (M)

Research Design Part I: Concepts, Operationalization and Variables J&R Ch. 3 & Reread Examples from J&R Ch. 1

# HW:

**Rework Research Question & Determine Dependent Variable** 

# Jan 26 (W)

Research Design Part II: Measurement (Precision (NOIR) and Accuracy (Reliability and Validity)

J&R Ch. 4 & Pollock Ch. 1

#### **HW DUE:**

**Final Research Question and Dependent Variable** 

#### Jan 31 (M)

Research Design III: Improving Measurement and Different Design Types

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 2 (W)

The Literature Review: What is it? Why do it? Where do research topics come from? How do I begin?

J&R Ch. 6

#### HW:

Bibliography (10 Scholarly Journal Articles---APA Citation Style) & Introduction

#### Feb 7 (M)

Library Visit and Information Session for Source Collection for Your Research Reports

Meet at Library-ATTENDANCE IS MANDATORY

# Feb 9 (W)

Research Report Literature Review Redux **J&R Ch. 6** 

#### **HW DUE:**

Bibliography (10 Scholarly Journal Articles---APA Citation Style) & Introduction

#### HW:

Literature Review (4-5 12 pt. font typed pages---10 articles from Bibliography parenthetically cited)

#### Feb 14 (M)

Statistics Review

**Pollock Chapter 1 Exercises** 

# **HW DUE:**

Literature Review (4-5 12 pt. font typed pages---10 articles from Bibliography parenthetically cited)

#### HW:

**Statistics Review Problems & Pollock Chapter 1 Exercises** 

#### Feb 16 (W)

Presenting & Describing Data and Data Distributions: Measures of Central Tendency J&R CH. 11 (pp. 351-383) & Pollock Ch. 2

# **HW DUE:**

**Statistics Review Problems & Pollock Chapter 1 Exercises** 

#### HW:

Pollock Ch. 2 & 3 Exercises

#### Feb 21 (M)

Data Transformations and Graphing

Pollock Ch. 3 and J&R Ch. 11 (from pp. 383-393)

#### **HW DUE:**

Pollock Ch. 2 & 3 Exercises

#### Feb 23 (W)

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

HW:

Pollock Ch. 4 & 5 Exercises

#### Feb 28 (M)

Making Comparisons and Making Controlled Comparisons: Hypotheses Testing Explored

Pollock Ch. 4 & 5

# **HW DUE:**

Pollock Ch. 4 & 5 Exercises

#### Mar 2 (W)

**MIDTERM EXAM** 

HW:

Pollock Ch. 6 Exercises

# Mar 7-10 (M-F)

**OFF SPRING BREAK** 

# Mar 14 (M)

Making Statistical Inference & Hypothesis Testing J&R Ch. 11 (pp. 393-425) Pollock Ch. 6

#### **HW DUE:**

Pollock Ch. 6 Exercises

# Mar 16 (W)

Hypothesis Workshop (Attendance Mandatory)

#### HW:

3 Testable Hypotheses (ID IVS and DV; Specify Level of Measurement for each variable, Operationalization, and Direction of each Hypothesis)

# Mar 21 (M)

Hypothesis Workshop (Attendance Mandatory)

# **HW DUE:**

3 Testable Hypotheses (ID IVS and DV; Specify Level of Measurement for each variable, Operationalization, and Direction of each Hypothesis)

#### HW:

Pollock Ch. 7 Exercises

#### Mar 23 (W)

Bivariate analysis II: crosstabs and the chi-squared test

J&R Ch. 12 (pps. 431-462) & Pollock Ch. 7

# **HW DUE:**

Pollock Ch. 7 exercises & FINAL 3 Testable Hypotheses (ID IVS and DV; Specify level of Measurement and Direction of each Hypothesis)

# <u>HW:</u>

Data & Methods Section (Identify Hypotheses, variables, measurement, and methods you will use to test hypotheses)

#### Mar 28 (M)

Reboot---Stata Questions

# Mar 30 (W)

Bivariate analysis III: Correlation J &R Ch. 12 (pps. 477-498)

# **HW DUE:**

Data & Methods Section (Identify Hypotheses, variables, measurement, and methods you will use to test hypotheses)

# HW:

Pollock Ch. 8 Exercises

# Apr 4 (M)

Bivariate Analysis: Regression Pollock Ch. 8 (stop p. 163)

# **Apr 6 (W)**

PROFESSOR OUT

# Apr 11 (M)

Multivariate Analysis: Analysis of Categorical Data

J&R Ch. 13 (pp. 503-514) & Pollock, Ch. 8 (pp. 163-165)

# **HW DUE**:

Pollock Ch. 8 Exercises

HW:

Pollock Ch. 9 Exercises

# Apr 13 (W)

Multivariate Analysis: Multiple Regression with Dummy Variables & Interaction Effects **J&R Ch. 13 (pp. 514-526) & Pollock Ch. 9** 

# **April 18 (M)**

Multivariate Analysis: Multiple Regression and Interaction Effects Pollock Ch. 9 (complete)

# **HW DUE:**

Pollock Ch. 9 exercises

# HW:

Data & Analysis Section (test hypotheses, insert figures, tables and graphs and write up findings)

**Ch. 10 Pollock Exercises** 

# Apr 20 (W)

Logistic Regression

Pollock Ch. 10

# **HW DUE:**

Data & Analysis Section (test hypotheses, insert figures, tables and graphs and write up findings)

**Ch. 10 Pollock Exercises** 

# Apr 25 (M)

**RESEARCH REPORTS DUE --- brief class on findings** 

# Apr 28 (TH)

**FINAL EXAM 7-10PM**