PS103: Political Science Research Methods

**Last revised 8/23/11**

Fall 2011

**Professor:** Debbie Schildkraut
210 Packard Hall, 7-3492
deborah.schildkraut@tufts.edu

**Class meets:** BLOCK D: Monday, 9:30 – 10:20, Eaton 208
Tues., & Thurs., 10:30 – 11:20, Eaton 208

**Office hours:** Mondays, 10:30 – 11:45, Thursdays 1:30 – 2:30, and by appointment.

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**Course Description:**
This course introduces the use of quantitative methods for investigating political issues such as campaigns and elections, the death penalty, public opinion about war and terrorism, and other policy controversies. Students will learn how to collect, analyze, and present data. The course emphasizes hands-on training that will provide useful skills for academic and professional settings. Most readings and assignments emphasize politics in the United States, though the skills we will develop are useful for every aspect of political science.

Class meets three times per week in either a lecture or workshop format. No prior data analysis or statistics background is necessary. The only prerequisite is that students must have already taken one of the core foundation Political Science courses (11, 21, 44, 46, 61).

The first portion of the course focuses on questions of research design and on several research methods commonly used in political science, such as content analysis, surveys, and experiments. The remainder of the course will be an introduction to quantitative methods through applied statistics. We will cover several methodological issues, including measurement and presentation, and basic statistical procedures, including confidence intervals, hypothesis testing, correlations, and regression. The emphasis will be on achieving an intuitive understanding of the central concepts and on using computers for data analysis. The main goal of the course is for you to become critical consumers of empirical social science research as well as competent producers of your own research. Coursework includes problem sets, a research assignment, and a final exam.

This course fulfills the Political Science Department’s methodology requirement and is considered part of the subfield in American Politics. It also satisfies the University’s math distribution requirement. It **does not** satisfy a social science distribution requirement.

You are expected to come to class prepared to discuss issues raised in the readings. Read the assignments **before class** on the date they are listed. For weeks in which there is more than one reading listed, please read the items in the order in which they appear on the syllabus.
I strongly encourage you to follow current events and to read a national newspaper, such as *The New York Times*, or watch *The PBS News Hour* several times per week. I rely on current political issues and events for illustration, and I welcome your examples and observations in this regard.

For many research techniques we cover, the readings will consist of a methodological piece that explains the technique and a substantive article or chapter in which the technique is used in practice. The following books are required reading for the course and are on sale at the college bookstore and on reserve in the library:

   *Note*: I do not mind if you purchase a used copy of the 7th edition and use that instead. In nearly all cases, the pages I assign are the same in both editions. Where they are different, I make a note of it in the reading list for that particular day. I tried to get the 7th edition for the bookstore to save you all some money, but the publisher was unable to supply it. The library has the 8th edition on reserve.


There are additional required readings posted on TRUNK (T) under “Course Documents” → “Readings”.

**Course Website on Trunk:**
If you are already registered for PS103, you should have access to the course website on TRUNK (http://trunk.tufts.edu). After you log in, select the link to our course across the top of the screen or under “My Sites.” There, you will find the syllabus, course readings, and links to websites that you may find useful as you work on assignments. The main “Course Tool” to use for our course is “Resources.” In it, you will find folders for readings, examples of past successful assignments, external links, citation guides, and more. I will use TRUNK to send emails to the class (using “Mailtool”) regarding announcements and possible syllabus changes or updates, and you will be required to use TRUNK to complete assignments. TRUNK automatically uses your “tufts.edu” email address; if this is not your preferred email address, then you must make sure that emails sent to you through TRUNK are forwarded to the appropriate location. **It is your responsibility to make sure that you receive and read class emails.**

This is the first semester that the University has used TRUNK for course websites, so please be patient as there may be challenges in figuring out how to make it suit our needs. If you are having trouble with TRUNK, you can see me or you can send a request for help to trunk@tufts.edu.

**Assignments and Grading:**
- Class participation:  5%
- Problem sets:    60% (6 total: 1 & 2 = 5%, 3 = 15%, 4 & 5 = 10%, 6 = 15%)
- Literature review: 10%
- Final exam: 25%
All assignments are graded out of 100 points. I use the chart below to convert numbers to letters:

- 97 – 100 = A+
- 94 – 96 = A
- 90 – 93 = A-
- 87 – 89 = B+
- 84 – 86 = B
- 80 – 83 = B-
- 77 – 79 = C+
- 74 – 76 = C
- 70 – 73 = C-
- 65 – 70 = D
- Below 65 = F

**Important Dates:**
- Mon., Sept. 26: Problem set #1 due
- Tues., Oct. 4: Problem set #2 due
- Mon., Oct. 10: Columbus Day: NO CLASS
- Thurs., Oct. 13: Literature review due
- Thurs., Oct. 20: Conference travel: NO CLASS
- Tues., Oct. 25: Problem set #3 due
- Tues., Nov. 8: Friday Schedule: NO CLASS
- Thurs., Nov. 10: Problem set #4 due
- Thurs., Nov. 24: Thanksgiving: NO CLASS
- Tues., Nov. 29: Problem set #5 due
- Mon., Dec. 12: Problem set #6 due
- Thurs., Dec. 15: Final exam: 12 – 2pm

**Problem Sets:**
There are 6 problem sets in this course. They are due at the start of class on the day indicated in the syllabus. They are graded out of 100 points and lose 5 points for every day late. I encourage you to work with each other on the assignments that involve statistical analysis, although you are to hand in your own assignment and use your own words to write up the analysis and interpretation of the results. See me if the difference between acceptable and unacceptable collaboration is unclear. Problems with computers or printers are not acceptable excuses for late assignments. Back up your work OFTEN.

Proper grammar, correct spelling, and appropriate citation of sources are minimum requirements for acceptable assignments. When in doubt, cite it. See me if you have any questions about properly documenting your sources.

Even though this class is primarily about statistics, it is still important to hand in assignments that are proofread and do not contain typos or grammatical errors. Such errors can and will hurt your grade.

**Note:** completing some problem sets requires using STATA, the statistical package for our class. STATA is only available on some computers, such as those in the Eaton lab. Be sure that you budget your time such that you are not in need of STATA when the public labs are closed.
OPTIONAL: You can purchase your own copy Stata/IC 11 from Tufts at a discount ($98.00 for 1 yr license; $65.00 for 6 month license). To do so, go to: [http://uit.tufts.edu/?pid=334&c=379](http://uit.tufts.edu/?pid=334&c=379) and follow instructions. I do not assume nor expect that you will buy your own copy of STATA.

**Literature review:**
This 6 – 8 page assignment is due on **Thursday, Oct. 13**. It is worth 10% of your course grade. More information about this assignment will be available later.

**Academic integrity:**
Assignments that you submit for this course will be reported to the Office of the Dean of Student Affairs if any evidence of academic dishonesty is detected. The Office of the Dean of Students publishes a thorough pamphlet on academic integrity and plagiarism. You can find it at: [http://studentservices.tufts.edu/dos/publications.htm](http://studentservices.tufts.edu/dos/publications.htm).

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**Topics and Readings:**

**Week 1:**
Tues., 9/6: Introduction (no reading)

Thurs., 9/8: Studying politics
Reading:
- PS103 syllabus
- JR: Chs. 1 (skim), 2 (pp. 27 – 48)

**Week 2:**
Mon., 9/12: Designing a research question and developing hypotheses
Reading:
- JR: Ch. 3.
- Shively: Chs. 2 (pp. 13 – 21), 3 (pp. 32 – 37), 6 (entire)

Tues., 9/13: Developing hypotheses, plus demo of websites for finding political science data.
- No additional reading

Thurs., 9/15: Lab workshop: Learning Excel
Reading:

**Problem set #1 distributed today**

**Week 3:**
Mon., 9/19: Workshop: Evaluating hypotheses
Reading:
- JR : Ch. 5 (pp. 147 – 165).
Tues., 9/20: Measurement
Reading:
- Shively: Chs. 4 (entire), 5 (to pp. 66)
- JR: Ch. 4.

Thurs., 9/22: Measurement, continued
- No additional reading

**Week 4:**
Mon., 9/26: Discussion of problem set #1.
**Problem set #1 due at start of class**
**Problem set #2 distributed today**

Tues. 9/27: Literature review and secondary sources
Reading:
  - Only read pp. 358 – 363.

Thurs., 9/29: Surveys: Sampling, Construction, and Implementation
Reading:
- JR: Chs. 7, 10 (pp. 297 – 331).
- (T) Adams, William. 2005. Election Night News and Voter Turnout, Ch. 4 (pp. 59 – 72)

**Week 5:**
Mon., 10/3: Public opinion data and introduction to STATA
Reading:
- Lab handout and PS 3 codebook (to be distributed in class on Thursday, 9/29)
- JR: Ch. 12 (pp. 426 – 439)

Tues., 10/4: More introduction to STATA
**Problem set #2 due at start of class**
**Problem set #3 distributed in class today**
Thurs., 10/6: Experiments
Reading:
- JR: Ch. 5 (pp. 127 – 147).

**Week 5:**
Mon., 10/10: Columbus Day: NO CLASS

Tues., 10/11: Content analysis
Reading:
- JR: Ch. 9 (skim 266-281; read the rest).

Thurs., 10/13: Introduction to statistics and descriptive statistics
Reading:
- AF: Chs. 1, 3 (pp. 31 – 51; 58 – 59)
**Literature review due today**

**Week 6:**
Mon., 10/17: Descriptive statistics; in-class workshop
Reading:
- JR: Ch. 11 (pp. 351 – 378)

Tues., 10/18: Descriptive statistics with Excel and STATA
- No additional reading

Thurs., 10/20: NO CLASS (due to conference travel)

**Week 7:**
Mon., 10/24: Probability distributions and z-scores
Reading:
- AF: Ch. 4.

Tues., 10/25: More on probability distributions and z-scores
**Problem set #3 due at start of class**
**Problem set #4 distributed in class**
Thurs., 10/27: Distribution exercise

**Week 8:**
Mon., 10/31: Lab workshop: Probability distributions

Tues., 11/1: Lab workshop continued; Confidence Intervals
Reading:
- AF: Ch. 5 (pp. 107 – 123).

Thurs., 11/3: More on Confidence Intervals

**Week 9:**
Mon., 11/7: Significance Tests
Reading:
- AF: Ch. 6 (pp. 143 – 159; 161 - 165).

Tues., 11/8: Friday Schedule: NO CLASS

Thurs., 11/10: Significance tests, continued
Reading:
- AF: Ch. 7 (pp. 185 – 193).
**Problem set #4 due in class**

**Week 10:**
Mon., 11/14: Significance tests, continued.
Reading:

Tues., 11/15: Confidence intervals and significance tests with STATA
**Problem set #5 distributed in class**

Thurs., 11/17: Confidence intervals and significance tests with STATA, continued.

**Week 11:**
Mon., 11/21: Bivariate data analysis: crosstabs and chi-square
Reading:
- JR: Ch. 12 (pp. 429 – 439; 454 – 459).
- AF: Ch. 8 (pp. 221 – 229)
- Shively: Ch. 10 (pp. 148-158 in 7th edition; pp. 150 – 160 in 8th edition)

Tues., 11/22: Bivariate regression
Reading:
- AF: Ch. 9 (pp. 255 – 268; 276 – 281).
Thurs., 11/24: Thanksgiving: NO CLASS

Week 12:
Mon., 11/28: Regression, continued
Tues., 11/29: Regression, continued
**Problem set #5 due in class**
**Problem set #6 distributed in class today**

Thurs., 12/1: Bivariate correlation
Reading:
- AF: Ch. 9 (pp. 269 – 272).
- JR: Ch. 12 (pp. 477 – 498).

Week 13:
Mon., 12/5: Regression workshop in STATA
Tues., 12/6: Multiple regression
Reading:
- AF: Ch. (pp. 321 – 326).
- JR: Ch. (pp. 514 – 519).
- Shively: Ch. 9 (pp. 141 – 147 in 7th edition; pp. 142 – 149 in 8th edition)
  - Read only to page 356.

Thurs., 12/8: Regression workshop
Reading:

Week 14:
Mon., 12/12: Free day/make-up day/review for final
**Problem set #6 due in class**

FINAL EXAM: Thurs., Dec. 15: 12 - 2pm

Note: It is your responsibility to make sure that your end-of-semester travel plans do not conflict with the final exam. Alternate exams WILL NOT be administered due to travel.