PS103: Political Science Research Methods

**last revised 8/17/15**

Fall 2015

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

Class meets: BLOCK D+: Tues., & Thurs., 10:30 – 11:45, Mark Computer Lab, Tisch Library

Office hours: Wednesdays 1:30-2:30pm, Thursdays 12pm-1pm, and by appointment.

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 the economy, 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 twice 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, 41, 42, 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 statistical procedures, including confidence intervals, hypothesis testing, correlations, and regression. The emphasis is on achieving an intuitive understanding of 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. Graded coursework includes problem sets and a final exam.

This course fulfills the Political Science Department’s methodology requirement. It is NOT part of any subfield in the major (IR, Comparative, Theory, or American). It 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 days 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. 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:

   (JR).

There are additional required readings posted on TRUNK (T) under “Resources” → “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 “More 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, 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.** If you have 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: 65% (5 total: 1 = 10%, 2 = 15%, 3 = 10%, 4 & 5 = 15%)
Final exam: 30%

All assignments are graded out of 100 points. I take off 5 points for every day that an assignment is late.
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:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tues., 9/29</td>
<td>Problem set #1 due</td>
</tr>
<tr>
<td>Tues., 10/13</td>
<td>Last day to select “pass/fail” option</td>
</tr>
<tr>
<td>Thurs., 10/15</td>
<td>Problem set #2 due</td>
</tr>
<tr>
<td>Thurs., 11/5</td>
<td>Problem set #3 due</td>
</tr>
<tr>
<td>Tues., 11/10</td>
<td>Problem set #4 due</td>
</tr>
<tr>
<td>Thurs., 11/24</td>
<td>Problem set #4 due</td>
</tr>
<tr>
<td>Thurs., 11/26</td>
<td>Thanksgiving, NO CLASS</td>
</tr>
<tr>
<td>Thurs, 12/10</td>
<td>Problem set #5 due</td>
</tr>
<tr>
<td>Wed, 12/16</td>
<td>Final exam, 7-9pm, location TBD</td>
</tr>
</tbody>
</table>

*NOTE*: We cover NEW material on Tuesday, 11/24. If you skip class that day for Thanksgiving travel, your ability to learn the material we cover on regression and correlation will probably suffer. I *strongly* urge you to avoid making Thanksgiving plans that would prevent you from attending class.

**Problem Sets:**

There are 5 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. No two problem sets should have identical wording in their interpretation of 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 questions about properly documenting sources.

 Even though this class is primarily about statistics, it is still important to proofread your assignments and make sure they 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. It is also available at the group workstations in Tisch. 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 12 from Tufts at a discount 1 yr and 6 month licenses are available). To do so, go to:

http://www.stata.com/order/new/edu/gradplans/campus-gradplan/

and follow instructions. I do not assume nor expect that you will buy your own copy of STATA.
Academic integrity:
Assignments 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. When in doubt, cite! The Office of the Dean of Students publishes a thorough pamphlet on academic integrity and plagiarism. You can find it at: http://uss.tufts.edu/studentAffairs/publications/.

Disability Services:
If you plan on requesting an accommodation or modification of assignments due to a documented disability, you must register with the Student Accessibility Services at the beginning of the semester and let me know as soon as possible so that I am able to reserve appropriate spaces as needed: http://uss.tufts.edu/arc/disability/

Topics and Readings:
NOTE: We will most likely deviate a bit from this schedule throughout the semester, as our pace gets determined as a group. Some years, certain units take longer, while on other years, different units take longer. We will discuss in class, and via TRUNK, if any due dates change as a result of deviations from the schedule below.

Week 1:
Tu, Sept. 8: Introduction (no reading)

Th, Sept. 10: Studying Politics
Reading:
  o PS103 syllabus
  o JR: Chs. 1 (skim), 2 (pp. 36 – 48)

Week 2:
Tu, Sept. 15: Designing a research question and developing hypotheses
Reading:
  o JR: Ch. 4.
  o (T) Shively, The Craft of Political Research), 6 (pp. 73 - 84)

Th, Sept. 17: Lab workshop (learning Excel), plus demo of websites for finding political science data
Reading:
  o JR: Ch. 11 (pp. 379 – 391).
  **problem set 1 distributed today**
Week 3:
Tu, Sept. 22: Measurement
Reading:
  - (T) Shively, *The Craft of Political Research*, Chs. 4 (pp. 42 – 54), 5 (pp. 58 – 66)
  - JR: Ch. 5 (pp. 127 – 149).
    This blog post discusses how our understanding of whether the white working class has
    become more Republican over the years depends crucially on how one defines “working class.”

Th, Sept. 24: Measurement, continued, and workshop on evaluating hypotheses.
Reading:
  - No additional reading

Week 4:
Tu, Sept. 29: Surveys: Sampling, Construction, and Implementation
Reading:
  - JR: Ch. 7 (pp. 222 – 232; 239 – 252), Ch. 10 (pp. 306 – 339).
    5, 2012.
  - If there is time, we will talk about your datasets for problem set 1, so come prepared to share your
    experience with the class.

**Problem set #1 due at start of class**

Th, Oct. 1: Public opinion data and introduction to STATA
Reading:
  - Lab handout and PS 2 codebook (to be distributed in class)
  - JR: Ch. 13 (pp. 428 – 445)

**problem set 2 distributed today**

Week 5:
Tues, Oct. 6: Experiments
Reading:
  - JR: Ch. 6 (pp. 165 – 190).
    During Negative Campaigns,” *Political Behavior*.
    Post*. 
Th, Oct. 8: Content analysis and Descriptive Statistics
Reading:
- JR: Ch. 9 (skim 278-291; read the rest).

Week 6:
Tu, Oct. 13: Descriptive statistics
Reading:
- AF: Chs. 1, 3 (pp. 31 – 51; 58 – 59)
- JR: Ch. 11 (pp. 357 – 376)

Th, Oct. 15: Descriptive statistics workshop
- No additional reading
**problem set 2 due today**

Week 7:
Tu, Oct. 20: Descriptive statistics exercise with Excel and STATA
- No additional reading
**problem set 3 distributed today**

Th, Oct. 22: Probability distributions and z-scores
Reading:
- AF: Ch. 4.

Week 8:
Tu, Oct. 27: More on probability distributions and z-scores, plus distribution exercise
- No additional reading

Th, Oct. 29: Probability distributions lab workshop
- No additional reading

Week 9:
Tu, Nov. 3: Confidence intervals and the T-distribution
Reading:
- AF: Ch. 5 (pp. 107 – 123).
Th, Nov. 5: Significance Tests
Reading:
  o  AF: Ch. 6 (pp. 143 – 159; 161 - 165).

**problem set 3 due**

Week 10:
Tu, Nov. 10: Wednesday schedule, NO CLASS

Th, Nov. 12: Significance tests, continued
Reading:
  o  AF: Ch. 7 (pp. 185 – 193).

**problem set 4 distributed today**

Week 11:
Tu, Nov. 17: Confidence intervals and significance tests with STATA
  o  No additional reading

Th, Nov. 19: Bivariate data analysis: crosstabs and chi-square
Reading:
  o  JR: Ch. 13 (pp. 456 – 463).
  o  AF: Ch. 8 (pp. 221 – 229).

Week 12:
Tu, Nov. 24: Bivariate regression
Reading:
  o  AF: Ch. 9 (pp. 255 – 268; 276 – 281).
  o  (T) Shively, *The Craft of Political Research*, Ch. 8 (pp. 113 – 122).

**problem set 4 due**

Th, Nov. 26: Thanksgiving, NO CLASS

Week 13:
Tu, Dec. 1: Bivariate correlation
  o  Reading: AF: Ch. 9 (pp. 269 – 272).
  o  JR: Ch. 13 (pp. 490 – 510).
  o  (T) Shively, *The Craft of Political Research*, Ch. 8 (pp. 122 – 129).

**problem set 5 distributed today**
Th, Dec. 3: Multiple regression
  o AF: Ch. (pp. 321 – 326).
  o JR: Ch. 14 (pp. 538 – 544; 550 – 555).
    * Read only to page 356.

**Week 14:**
Tu, Dec. 8: Regression workshop in STATA
  o No additional reading

Th, Dec. 10: Make up day/Review for final/course evaluations.

**problem set 5 due in class**

**FINAL EXAM:** Wed., Dec. 16: 7-9pm, location TBD.
  BRING A CALCULATOR.

  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.