

POL 610  
Spring, 2008  
*Instructor:* Howard Lavine  
*Class Location and Hours:* N702 SBS; Tuesday, 2:00-5:00  
*Office Hours:* MF 10:45-12:15, and by appointment

## **EXPERIMENTAL METHODS IN POLITICAL SCIENCE**

### ***Course Description***

This course is intended to provide students with an introduction to experimental methods and analysis in political science. Experimentation encompasses a variety of issues, including research design, measurement, statistical inference, and ethics. Although we will consider each of these topics in class, the course will focus largely on the statistical decomposition of variance associated with a variety of experimental designs. In particular, the course will focus on the development of the following skills:

1. An understanding of the theoretical issues involved in experimentation, a feel for the “craft” of staging an experiment, an understanding of the costs and benefits associated with different experiment designs as well as the costs and benefits of experiments relative to nonexperimental research designs.
2. The ability to critically evaluate experimental research (e.g., assess the construct validity of independent variables, the internal validity of an experiment).
3. Competence in analyzing data from a variety of experimental designs.
4. The ability to formulate experimental strategies for hypothesis testing in political science.

### ***Required Readings:***

Keppel, Geoffrey, and Thomas D. Wickens. 2004. *Design and Analysis: A Researcher's Handbook* (4<sup>th</sup> Edition). Upper Saddle River, NJ: Pearson/Prentice Hall.

There will also be a small number of additional readings, available on blackboard.

## ***Methods of Evaluation***

Grades will be determined by the following four factors:

Midterm Exam:	25%
Final Exam:	40%
Homework:	5%
Projects:	30%

**Note:** Project 1 is worth 10%. The written portion of project 3 is worth 15%, and the oral portion of project 3 is worth 5%.

## ***Homework***

To develop data analysis skills, there will be weekly homework assignments involving both hand calculation and STATA exercises. Each assignment is due the week after it is assigned, and will be reviewed in class. All assignments will be graded in a binary fashion as either acceptable or unacceptable. Homework deemed unacceptable should be worked on until it is acceptable.

## ***Analysis of Experimental Data Sets***

The completion of homework assignments based on simplified “made-up” data is an important (and inevitable) pedagogical practice. Data derived from real experiments are generally messier, rendering them a greater analytic and interpretive challenge. Practice in the analysis and interpretation of data from bona fide experiments provides an excellent exercise in becoming a competent experimentalist. You will analyze, interpret, and report on two real data sets, each of which is linked to a set of substantive readings. The two projects are in the following topic areas: (1) political advertising; (2) race and politics. The first report should be brief (5 pages). The second project, based on the 1991 National Race and Politics Survey (NRPS), is a more expansive assignment. The NRPS contains 18 separate experiments, any one of which may be used as the basis of a 10-page report. I will provide an extensive handout detailing each experiment, as well as the data and an accompanying codebook. You will also present a report based on this assignment at our last class meeting. We will discuss the format of each project in class.

### *Class Presentation of Articles*

Beyond learning about the mechanics of ANOVA designs, it is useful to see how political scientists and social psychologists use the experimental method in their own work. During the course, we will read and discuss eight substantive articles that use an experimental design. Each student will be responsible for leading a discussion (approximately 15 minutes) of one of the articles. The following questions should be considered: (1) What is the substantive research question? (2) What type of experimental design is used? (3) What are the findings? (4) Does the experiment possess adequate validity (internal, external, construct)?

The substantive experimental reading for each week is denoted by an asterisk (\*).

### *Meeting Schedule and Assigned Readings*

#### **WEEK 1: 1/29      INTRODUCTION TO EXPERIMENTAL DESIGN**

Keppel and Wickens, Chapter 1

Kinder, D. R., & Palfrey, T. R. 1992. On Behalf of an Experimental Political Science. Preface to *Experimental Foundations of Political Science*. Ann Arbor: University of Michigan Press.

Smith, Eliot, R. 2000. Research Design. In Harry T. Reis and Charles M. Judd, *Handbook of Research Methods in Social and Personality Psychology* (pp. 17-39). New York: Cambridge University Press.

#### **WEEK 2: 2/5      SINGLE-FACTOR DESIGN**

Keppel and Wickens, Chapters 2-3

\*Sullivan, John. L., James E. Piereson, J. E., and George E. Marcus. 1978. Ideological Constraint in the Mass Public: A Methodological Critique and Some New Findings. *American Journal of Political Science*, 22: 233-249.

#### **WEEK 3: 2/12      CONTRAST ANALYSIS IN SINGLE FACTOR DESIGNS**

Keppel and Wickens, Chapters 4-5

*Meeting Schedule and Assigned Readings, cont.'d*

**WEEK 4: 2/19      POST-HOC TESTS AND MODEL ASSUMPTIONS**

Keppel and Wickens, Chapters 6-7

\*Rahn, W. M., Aldrich, J. H., & Borgida, E. 1994. "Individual and Contextual Variations in Political Candidate Appraisal." *American Political Science Review*, 88, 193-199.

**WEEK 5: 2/26              POWER ANALYSIS**

Keppel & Wickens, Chapter 8

\*Nelson, Thomas, and Donald R. Kinder. 1996. Issue Frames and Group Centrism in American Public Opinion. *Journal of Politics*, 58, 1055-1078.

**Discuss Project 1**

*Project Readings:*

Ansolabehere, S., Iyengar, S., Simon, A. & Valentino, N. 1994. Does attack Advertising Demobilize the Electorate? *American Political Science Review*, 88, 829-838.

Kahn, Kim Fridkin, and John G. Geer. 1994. Creating Impressions: An Experimental Investigation of Political Advertising on Television. *Political Behavior*, 16, 93-116.

**WEEK 6: 3/4              TWO-WAY FACTORIAL DESIGN I: OVERALL MODEL,  
MAIN AND SIMPLE EFFECTS, CONTRASTS**

Keppel & Wickens, Chapters 10-12

\*Cohen, Geoffrey, L. 2003. Party over Policy: The Dominating Influence of Group Impact on Political Beliefs. *Journal of Personality and Social Psychology*, 85, 808-822.

*Meeting Schedule and Assigned Readings, cont.'d*

**WEEK 7: 3/11 TWO-WAY FACTORIAL DESIGN II: INTERACTIONS  
AND INTRACTION CONTRASTS**

**\*\*\*Project 1 due in class**

Keppel & Wickens, Chapter 13

\*Petty, R. E., Z. L. Tormala, P. Brinol, & W. B. Jarvis. 2006. Implicit Ambivalence from Attitude Change: An Exploration of the PAST Model. *Journal of Personality and Social Psychology*, 90, 21-41.

**Midterm Exam Review**

**WEEK 8: 3/18 \*\*\*\*\*SPRING BREAK\*\*\*\*\***

**WEEK 9: 3/25 \*\*\*\*\*MIDTERM EXAM\*\*\*\*\***

Keppel & Wickens, Chapters 14-15

**WEEK 10: 4/1 GENERAL LINEAR MODEL/ANCOVA**

Keppel & Wickens, Chapters 16-17

**WEEK 11: 4/8 SINGLE FACTOR WITHIN-SUBJECT DESIGN**

**WEEK 12: 4/15 TWO-FACTOR WITHIN-SUBJECT DESIGN; MIXED  
DESIGN**

Keppel & Wickens, Chapters 18-20

*Meeting Schedule and Assigned Readings, cont.'d*

**WEEK 13: 4/22**

**DESIGNS WITH CONTINUOUS AND CATEGORICAL  
VARIABLES**

West, S. G., Aiken, L. S., & Krull, J. L. (1996). Experimental Personality Designs: Analyzing Categorical by Continuous Interactions. *Journal of Personality, 64*: 1-27.

\* Valentino, N. A., Hutchings, V. L., & White, I. K. 2002. "Cues that Matter: How Political Ads Prime Racial Attitudes During Campaigns." *American Political Science Review, 96*, 75-90.

\* Feldman, Stanley, and Leonie Huddy. 2005. Racial Resentment and White Opposition to Race-Conscious Programs: Principles or Prejudice? *American Journal of Political Science, 49*, 168-183.

**Discuss Project 2**

The 1991 National Race and Politics Survey is based on a random digit telephone sample of adults in the United States. The survey contains 18 separate experiments and a variety of dependent variables related to racial and policy attitudes. Your task is to: (1) create an experimental design including at least one categorical (i.e., manipulated) variable, and at least one continuous (i.e., measured) variable. (2) select a dependent variable; (3) analyze and interpret the data using moderated regression; (4) write an 8-10 report.

**Reading** (selections from):

Sniderman, Paul M., and Edward Carmines. 1996. *Reaching Beyond Race*. Cambridge, MA: Harvard University Press.

Hurwitz, Jon, and Mark Peffley (Eds.). 1998. *Perception and Prejudice*. New Haven, CT: Yale University Press.

*Meeting Schedule and Assigned Readings, cont.'d*

**WEEK 14: 4/29                      VALIDITY**

Cook, T. D., & Campbell, D. T. (1979). *Quasi-Experimentation* (Chapter 2: Validity, pp 37-91). Boston: Houghton-Mifflin.

Mook, D. G. (1983). "In Defense of External Invalidity." *American Psychologist*, 38, 379-387.

Sears, David O. 1986. "College Students in the Laboratory: Influences of a Narrow Data Base on Social Psychology's View of Human Nature." *Journal of Personality and Social Psychology*, 51: 515-530.

\*Cooper, Joel, M. P. Zanna, and P. A. Taves. 1978. Arousal as a Necessary Condition for Attitude Change Following Induced Compliance. *Journal of Personality and Social Psychology*, 36, 1101-1106.

**WEEK 15: 5/6                      CLASS PRESENTATIONS**

**Project 2 Due: *Tuesday, May 13<sup>th</sup>***

**Final Exam: *Tuesday, May 20<sup>th</sup>, 2:00-5:00***