

POL 582: RESEARCH METHODOLOGY I

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POL 582 – Fall 2008: M-W: 11:00 – 12:15 pm

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Office Hours: Tuesday 1-4 pm

REQUIRED TEXTBOOKS

Larsen, Richard J. and Morris Marx. 2005. 4th Ed. *Introduction to Mathematical Statistics and Its Applications*. Prentice Hall.

Kennedy, Peter. 2008. 6th Ed. *A Guide to Econometrics*. Wiley-Blackwell.

Gill, Jeff. 2006. *Essential Mathematics for Political and Social Research*. Cambridge University Press.

COURSE OVERVIEW

This course provides an introduction to the theory and practice of quantitative data analysis techniques. The purpose of this course is to establish the basic tools necessary to conduct and consume quantitative political science research. More advanced techniques cannot be mastered without a complete understanding of the material in this course.

Statistics courses tend to cause a non-trivial amount of trepidation for 1st year graduate students.. You may be assured that no previous experience with statistics is necessary for this course. By far the most important skill needed is the ability to work hard. We will move quickly through a substantial amount of material, and you must be consistent with your effort in order to keep up with the pace. Because the material in this course is not something that will go away as you advance in your graduate studies, it is imperative that you are completely dedicated to understanding the ideas and techniques covered throughout the semester.

GRADING

35% Midterm Exam

35% Final Exam

30%: Final Assignment

Homework problems will be assigned weekly but will not be graded. You will be required to turn in your homework assignments on time, however. Collaborating with your colleagues on the homework is encouraged. Be warned though that mastery of the material is contingent on your ability to understand and solve the types of problems in the homework assignments.

Exams will be administered in class, and will consist of a mix of problem solving and conceptual analysis.

The final assignment will consist of an extended applied problem set. You will be given a data set, and you will be required to conduct several sets of analyses. The assignment will

be distributed on December 1st and will be due on December 10th. Collaboration on this assignment will not be permitted.

The final grades will reflect a conventional understanding of graduate work.

A hopefully unnecessary note about academic honesty: It is your responsibility to be completely and fully aware of the relevant university/departmental policies. I have zero tolerance regarding such issues.

COURSE SCHEDULE

August 25 – Introduction/Describing Data – L & M Ch. 1

Additional Reading: Frymer. 2003. “Acting When Elected Officials Won’t: Federal Courts and Civil Rights Enforcement.” *American Political Science Review* 97: 483-499.

August 27 – Introduction to Correlation & Regression

Additional Reading: Gibson, Caldeira, and Baird. 1998. “On the Legitimacy of National High Courts” *American Political Science Review* 92: 343-358.

September 1 – No Class – Labor Day

September 3 – Introduction to Measurement

Additional Readings: Sniderman, Piazza, Tetlock, Kendrick. 1991. “The New Racism.” *American Journal of Political Science*. 35: 423-447.

Segal and Cover. 1989. “Ideological Values and the Votes of U.S. Supreme Court Justices” *American Political Science Review* 83: 557-565.

September 8 – Probability Theory – L & M Ch. 2, Gill Ch. 7

Additional Reading: Pierson. 2000. “Increasing Returns, Path Dependence and the Study of Politics.” *American Political Science Review*. 94: 251-267.

September 10 – Probability Theory: L & M Ch. 2, Gill Ch. 7

Additional Reading: Schrodtt and Mintz. 1988. “The Conditional Probability Analysis of International Events Data” *American Journal of Political Science* 32: 217-230.

September 15 – Random Variables – L & M Ch 3, Gill Ch. 8

September 17 – Random Variables – L & M Ch 3, Gill Ch. 8

September 22 – Random Variables – L & M Ch 3, Gill Ch. 8

September 24 – Special Distributions – L & M Ch 4

Additional Reading: King. 1988. “Statistical Models for Event Counts: Bias in Conventional Procedures and Evidence for the Exponential Poisson Regression Model.” *American Journal of Political Science*. 32: 838-863.

September 29 – Special Distributions – L & M Ch 4

October 1 – Special Distributions – L & M Ch 4

Additional Reading: Jones, Sulkin, Larsen. 2003. “Policy Punctuations in American Political Institutions.” *American Political Science Review*. 97: 151-169.

October 6 – Estimation – L & M Ch 5

October 8 – Estimation – L & M Ch 5

October 13 – Estimation – Kennedy Ch 2

October 15 – Catch Up/Review

October 20 – Midterm

October 22 – Hypothesis Testing: H & L Ch 6

Additional Reading: Giles. 1977. “Equivalent Versus Minimum Winning Coalition Size. A Test of Two Hypotheses.” *American Journal of Political Science*. 21:405-408.

October 27 – Hypothesis Testing: H & L Ch 6

Additional Reading: Krehbiel. 1990. “Are Congressional Committees Composed of Preference Outliers?” *American Political Science Review*. 84:149-163.

October 29 – Hypothesis Testing/Normal Distribution: H & L Ch 6-7

Additional Reading: Gill. 1999. “The Insignificance of Null Hypothesis Testing.” *Political Research Quarterly*. 52:647-674.

November 3 – Hypothesis Testing/Normal Distribution: H & L Ch 6-7

Additional Reading: Berk, Western, Weiss. 1995. “Statistical Inference for Apparent Populations.” *Sociological Methodology*. 25:421-458. (note several articles in this issue were published in response, including a rejoinder by Berk, et al.)

November 5 – Two-Sample Problems: H & L Ch 9

Additional Reading: Huber and Lapinski. 2006. “The Race Card Revisited: Assessing Racial Priming in Policy Contests.” *American Journal of Political Science*. 50: 421-440.

November 10 – Regression Redux: H & L Ch 11, Kennedy Ch 3-4

Additional Reading: Bueno de Mesquita. 1983. “The Costs of War: A Rational Expectations Approach.” *American Political Science Review*. 77: 347-357.

November 12 – Regression – Specification: H & L Ch 11, Kennedy Ch 5

Additional Reading: King. 1986. “How Not to Lie with Statistics: Avoiding Common Mistakes in Quantitative Political Science.” *American Journal of Political Science*. 30: 666-687.

November 17 – Regression – Violating Assumptions: Kennedy Ch 6-8

Additional Reading: Shipan. 2004. “Regulatory Regimes, Agency Actions, and the Conditional Nature of Congressional Influence.” *American Political Science Review*. 98:467-480.

November 19 – Regression – Violating Assumptions: Kennedy Ch 9-10

Additional Reading: Bartels. 1993. “Messages Received: The Political Impact of Media Exposure.” *American Political Science Review*. 87:267-285.

November 24 – Regression – Violating Assumptions: Kennedy Ch 11-12

Additional Reading: Franklin. 1991. “Eschewing Obfuscation? Campaigns and the Perception of US Senate Incumbents.” *American Political Science Review*. 85:1193-1214.

November 26 – Regression – Qualitative IVs/Interactions: Kennedy Ch 14

Additional Reading: Brambor, Clark, Golder. 2006. “Understanding Interaction Models: Improving Empirical Analyses.” *Political Analysis*. 14: 63-82.

December 1 – Regression – Classical vs Bayesian Approaches: Kennedy Ch 15

Additional Reading: Western and Jackman. 1994. “Bayesian Inference for Comparative Research.” *American Political Science Review*. 88:412-423.

December 3 – ANOVA: H & L Ch 12

Additional Reading: Federico. 2004. “When Do Welfare Attitudes Become Racialized? The Paradoxical Effects of Education.” *American Journal of Political Science*. 48:374-391.

December 8 – Nonparametric Methods – H & L Ch 14

Additional Reading: Beck and Jackman. 1998. “Beyond Linearity by Default: Generalized Additive Models.” *American Journal of Political Science*. 42: 596-627.

December 10 – Catch Up/Review

December 15 – Final (11-1)