

OHIO STATE UNIVERSITY
Department of Political Science
Methods of Quantitative Analysis
Political Science 685

Autumn 2005
M,W 9:30-11:18
125 Derby Hall

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The objective of this course is to provide first-year Ph.D. students in political science with training in probability and statistics at a level appropriate for research scholars in the discipline. Students enrolled in the course should have a basic familiarity with calculus—successful completion of the summer workshop is adequate—and have taken an undergraduate, non-mathematical course in statistics. We will use *STATA* for some homework exercises and applications, but no prior experience is required. Readings and homework exercises will be drawn from a standard undergraduate text on probability and statistics, and applications of theoretical concepts will be illustrated in articles from the political science journals.

BOOKS

Tanis, Eliot A. and Robert V. Hogg. 2000. *Probability and Statistical Inference* (6th Edition), Prentice Hall. (required)

Chiang, Alpha C. 1984. *Fundamental Methods of Mathematical Economics*, Third Edition. McGraw-Hill. (recommended).

ARTICLES

Achen, Christopher H. 1975. "Mass Political Attitudes and the Survey Response," *American Political Science Review*, 69: 1218-1231.

Browne, Eric C., John P. Frensdreis, and Dennis W. Gleiber. 1986. "The Process of Cabinet Dissolution: An Exponential Model of Duration and Stability in Western Democracies," *American Journal of Political Science*, 30: 628-50.

Casstevens, Thomas W. and James R. Ozinga. 1974. "The Soviet Central Committee Since Stalin: A Longitudinal View," *American Journal of Political Science*, 18: 559-68.

Shrodt, Philip A. and Alex Mintz. 1988. "The Conditional Probability Analysis of International Events Data," *American Journal of Political Science*, 32: 217-230.

Weingast, Barry. R. 1979. "A Rational Choice Perspective on Congressional Norms," *American Journal of Political Science*, 23: 245-62.

GRADES

Grades for the course will be based on satisfactory completion of homework problems (40 percent of the total grade), a midterm examination (30 percent), and a comprehensive final examination (30 percent). Homework problems are always due at the beginning of the next class period.

COURSE SCHEDULE

Date		Reading	Homework
September	21	http://www.psychstat.smsu.edu/introbook/sbk12m.htm	summation exercise set
	26	1.1, 1.2	1.1-1, 3, 4, 6, 7, 8, 9; 1.2-1 (a, d), 3, 7
	28	1.3, 1.7	1.3-3, 5, 9; 1.7-1, 5
October	3	2.1	2.1-1, 3, 5, 7, 9, 13
	5	2.2	2.2-1, 3, 5, 7
	10	2.3, 2.4	2.3-1, 3, 5; 2.4-1, 3, 5
	12	3.1, 3.2	3.1-1, 3, 5, 7; 3.2-1, 5, 7, 15
	17	Weingast (1979), Shrodt and Mintz (1988), and Achen (1975)	
	19	Examination	
	24	3.3	3.3-1, 3, 5, 9, 11, 13, 15
	26	3.4, 3.5	3.4-1, 3; 3.5-1, 3, 5
	31	4.1, 4.2	4.1-1, 3, 20; 4.2-3, 7
November	2	4.3	4.3-7, 4.3-9, 4.3-11
	7	Casstevens and Ozinga (1974); Browne, et. al. (1986)	
	9	4.4	4.4-1, 3, 5, 7, 9, 13
	14	5.1, 5.2	TBA
	16	6.1, 6.2, 6.3	6-3.1, 3, 5, 15
	21	6.4, 6.6	6.4-11; 6.6-1, 3
	23	7.1, 7.2	7.1-3, 7.1-7
	28	8.1, 8.2, 8.4, 8.5	8.1-1, 8.2-1, 8.3-1, 8.5-1
	30	7.8, 7.9	TBA
December	7	Examination, 7:30 a.m.	