

**SCHOOL OF PUBLIC POLICY**  
**PUBP 704 STATISTICAL METHODS FOR POLICY ANALYSIS**  
**Sec. 004**

**FALL 2002**                      **Tuesday 7:20-10:00**                      **Krug 209**

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**COURSE DESCRIPTION**

The course is a graduate-level introduction to the types of statistical analyses commonly used in the policy sciences. Topics include descriptive statistics, sampling theory, probability distributions, estimation and significance testing, contingency tables, linear bivariate regression and correlation, and multiple regression. The course will also provide an introduction to statistical analysis using sophisticated computer systems. The course work will include readings from a textbook and some handouts, two lab sessions for an introduction to computer processing, homework, a midterm, and a final examination. The course grade will be based on homework (1/4), midterm (1/4), and a final exam (1/2).

**PREREQUISITES**

Since the course is an advanced but introductory treatment, no specific prerequisites are necessary, but good facility with college-level algebra is essential and an undergraduate course in basic statistics is very helpful. This course is not required for PhD students who have recently taken a graduate-level statistics course that covered the above topics at a level equal to that of the text by Agresti and Finlay.

**REQUIRED TEXT**

Alan Agresti and Barbara Finlay, *Statistical Methods for the Social Sciences*, Prentice Hall, 3<sup>rd</sup> Edition, 1997

**Lecture Topics and Readings**

AUG 27	INTRODUCTION TO STATISTICS AND COMPUTER PROCESSING Chapter 1 plus handout
SEPT 3	SAMPLING AND MEASUREMENT Chapter 2
SEPT 10	DESCRIPTIVE STATISTICS

		Chapter 3 Homework #1 (homework assignments due at beginning of next class)
SEPT	17	PROBABILITY THEORY & DISTRIBUTIONS Chapter 4
SEPT	24	STATISTICAL ESTIMATION; COMPUTER LAB Chapter 5
OCT	1	SIGNIFICANCE TESTING Chapter 6 Homework #2
OCT	8	TWO-GROUP TESTS Chapter 7
OCT	15	COLUMBUS DAY RECESS
OCT	22	CONTINGENCY TABLES Chapter 8 Midterm (covers topics through Oct 8)
OCT	29	BIVARIATE REGRESSION & CORRELATION; COMPUTER LAB Chapter 9 Homework #3—includes computer run (due following week)
NOV	5	INTRODUCTION TO MULTIVARIATE ANALYSIS Chapters 10 & 11
NOV	12	MULTIPLE REGRESSION & CORRELATION Chapter 14
NOV	19	MULTIPLE REGRESSION CONTINUED; LOGISTIC Chapter 15 Homework #4—includes computer run (due following week)
NOV	26	SURVEY OF ADVANCED MULTIVARIATE TECHNIQUES Chapter 16 plus handout on additional multivariate techniques
DEC	3	COURSE REVIEW
DEC	12	FINAL EXAM