POLS 642
Intermediate Statistics
Spring, 2009
DuSable 464

Class Hours: Monday, 6:30-9:10
Instructor: Heidi Koenig
Office Hours: Monday, 1:00-2:00
Thursday, 9:30-11:00
or by appointment.
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REQUIRED TEXTBOOKS:

Peter Kennedy, A Guide to Economics, 5th ed. (2003).

Gujarati. Basic Econometrics, 4th ed. McGraw Hill

Norusis. SPSS 16.0 Guide to Data Analysis. Prentice Hall.

COURSE OBJECTIVES

This course is the advanced course in regression analysis. This is a "tools" course, designed to give you an ability to properly understand, interpret, and use statistical concepts and to develop an understanding of the challenges faced by statisticians when using regression and advanced regression concepts. These skills will be helpful in future understanding some of the material in other courses and will be invaluable in addressing the issues raised in your dissertation and future research. In addition, taking this class makes more likely the possibility you will be asked to teach a research design or elementary statistics in your job. Pay attention.

The course is designed for graduate students with little or no background in mathematics beyond basic algebra. Thus, the course does not focus on derivations and proofs, but rather on understanding the uses and interpretations of statistics as tools for data analysis. A secondary objective of the course is to introduce you to the utility of statistics software. Thus, a major part of the course assignments require the use of the SPSS software package for statistical analysis.

You may use your home or office PC or the Political Science lab. The fee that you paid as part of registering for this course goes to support the Political Science lab and the development of the smart classrooms on campus. These fees are the source of most of the funding to purchase new equipment and software for the Political Science lab.

It is better to ask questions during class than to wonder about the answers when you see the homework. Learning statics is quite often a "lightbulb" experience – you think you don't understand how individual concepts are related and the WOW! They tie together. To get to the WOW! Part, though, you have to understand the individual elements. Therefore, there will be homework assigned and extra problems suggested.

Homework is due at the beginning of the class session. Statistics is about logic, using mathematics to apply the logic in a particular case. There really isn't need for math anxiety in this class. If you feel that the math is beyond you, I will find a review book at the level necessary to alleviate your concern.

I love statistics. I love teaching this course, learning new statistical methods, and understanding different uses for different types of statistical analyses. I don't expect that you will walk out of the room with my love for the topic. I do expect you will be competent to do statistics, interpret statistical results provided to you, and teach elementary course work in statistics competently.

COURSE REQUIREMENTS

Homework(s)	40
First Project	40
Second Project	40
Final Project	80

ATTENDANCE/MATERIAL COVERED

Attendance will be taken in class. Tardiness is considered an absence. The instructor reserves the right to alter the grade of students based on class attendance and participation. The professor reserves the right to alter the syllabus at any time during the semester.

COURSE OUTLINE AND READING ASSIGNMENTS:

WEEK		TOPIC	ASSIGNMENT
Jan. 12	1.	Introduction, pretest, review	
Jan. 19	2.		Gujarati, ch. 3, 4
Jan. 26	3.		Gujarati, ch. 5, 6
Feb. 2	4.		Gujarati, ch. 6 (cont.) Review for examination
Feb. 9	5.	**FIRST EXAMINATION**	No reading
Feb. 16	6.		Gujarati, ch. 7
Feb. 23	7.		Gujarati, ch. 8
March 2	8.		Gujarati, ch. 9
March 9	9.	**SPRING BREAK**	
March 16	10.	**SECOND EXAMINATION** **LECTURE**	Kennedy, ch. 6, 7
March 23	11.	**PROFESSOR KOENIG OUT OF TOWN** **CATCH UP ON YOUR HOMEWORK, READ AHEAD**	
March 30	12.	Multicollinearity in regressors	Gujarati, ch. 10
April 6	13.	Heteroscedasity in error term	Gujarati, ch. 11
April 13	14.	Autocorrelation of error term	Gujarati, ch. 12
April 20	15.	Model mis-specification	Gujarati, ch. 13
April 27	16.		
May 5		**FINAL EXAMINATION**	