

Econ 400: Economic Statistics

Summer II, 2013

### Syllabus

Instructor: Robert M. Gonzalez  
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Website: sakai.unc.edu  
Office hours: Phillips Annex 104, Monday & Wednesday 11:30 - 12:30  
Classroom: Gardner 106  
Time: Monday through Friday from 8:00am - 9:30am  
Materials: Newbold, Carlson, & Thorne: Statistics for Business and Economics, 8th ed.  
Intercooled Stata (Version 12 or later)  
Background: Introductory economics (101 or equivalent)  
Math skills, through basic calculus (derivatives and integrals)

**Goals of the Course:** My goal in this course is to provide you with: an understanding of statistical vocabulary and techniques; the ability to apply statistical and probabilistic “philosophy” to real-world situations; and the skills to analyze data and draw conclusions. The course covers six general topics:

1. Descriptive statistics
2. Probability theory
3. Random variables
4. Sampling distributions
5. Hypothesis testing
6. Regression analysis

**Attendance:** Regular attendance is strongly encouraged, but I don’t monitor attendance formally. Regardless of whether you attend, I expect that you will submit assignments on time and that you know any announcements made in class. Remember that this is a summer course where I will be covering new topics everyday therefore your performance in class might be affected from not attending or falling behind.

**Announcements:** When I need to make administrative announcements (about assignments, changes to the schedule, or such), I will write them on the board at the start of lecture, or I will email the class. The course website on Sakai contains handouts, assignments, and other materials.

**Assignments:** There will be two kinds of Homework assignments: Problem Sets and Stata Assignments. Problem Sets come from your textbook and must be turned in at the beginning of the lecture on the due date. Stata Assignments must be turned in on Sakai by midnight on the due date (I will guide you on how to do this when I assign the first Stata Assignment). There will be a total of eight assignments (4 Problem Sets and 4 Stata Assignments). Only the highest three of each will count towards your final grade (6 total). In order to get your homework graded efficiently, your homework should be submitted on time and in order and written

clearly with pages attached. Homeworks turned in within a day after the due date will receive half credit. No homework will be accepted more than a day late without a valid excuse.

**Exams:** There will be three exams: Two midterms and a Final. Refer to *Grading* for the dates of the exams. If you have to miss a midterm there is no way to make up that exam. Instead, the grade in the Final will also count for the missed midterm. The final exam is cumulative; however greater emphasis will be placed on later topics. The final exam is obligatory (University policy).

**Grading:** Your grade is based on three exams and the six valid homework assignments:

Homework assignments (12%)  
 First midterm (24%): Tuesday, July 2  
 Second midterm (24%): Monday, July 15  
 Final exam (40%): Friday, July 26 (8am-11am)

**Grades:**  
 A ( $\geq 90$ )  
 B ( $\geq 80, < 90$ )  
 C ( $\geq 70, < 80$ )  
 D ( $\geq 60, < 70$ )

**Etiquette:** From the start of the lecture until its end, please avoid doing anything that would distract your classmates or the lecturer. Unless instructed otherwise, please refrain from using electronic devices during lectures and exams. (These include phones, calculators, computers, MP3 players, and such.)

**Accommodations:** Please inform me of any unusual circumstances at your earliest convenience, so that I can accommodate them in the best manner possible.

**Academic integrity:** Copying any assignment or exam from an undocumented source constitutes an honor violation. In addition, no aids of any sort are permitted (cell phones, graphing calculators, computers, etc.)

**Class Schedule:**

Date	Subject	Chapters	Homeworks
June 20	Definitions, Using Stata	1.1, 1.2	
21	Describing Data: Graphical	1.3, 1.4, 1.5	
22			
23			
24	Describing Data: Numerical	2.1, 2.2, 2.4 Stata handout	<b>I will do Stata 1 in class (You do not need to turn it in)</b>
25	Describing Data: Numerical	2.2, 2.4,	

26	Probability	3.1, 3.2	
27	Probability	3.3, 3.4	
28	Probability	3.4, 3.5	
29			
30			
July 1	Discrete Random Variables	4.1, 4.2, 4.3	<b>PS 1 due</b>
2	<b>Exam I (Covers chapters 1, 2, and 3 or up to June 28)</b>		
3	Discrete R.V. (and Cont. R.V.)	4.4, 4.5, 4.7, 5.1, 5.2	
4	No Class		
5	Continuous R.V.	5.3, 5.4, 5.5	<b>Stata 2 due(midnight)</b>
6			
7			
8	Sampling Distribution	6.1, 6.2, 6.3	<b>PS 2 due</b>
9	Estimation	7.1, 7.2, 7.3	
10	Estimation	7.4, 8.2, 8.3	
11	Hypothesis testing	9.1, 9.2, 9.3	
12	Hypothesis testing	9.4, 10.1	<b>PS 3 due</b>
13			
14			
15	<b>Exam II (Covers chapters 4, 5, 6, 7, 8 or up to July 10)</b>		
16	Hypothesis testing	10.2, 10.3	
17	Simple Regression	11.1, 11.2, 11.3, 11.4	
18	Simple and Multiple Regression	11.5, 11.6	

19	Multiple Regression	12.1, 12.2, 12.3	<b>PS 4 due Stata 3 due(midnight)</b>
20			
21			
22	Multiple Regression	12.4, 12.5	
23	Last day of class (Review)	All chapters	<b>Stata 4 due(midnight)</b>
24	No Class		
25	No Class		
July 26, 8am-11am	<b>Final Exam (Cumulative but with greater emphasis on ch. 9, 10, 11, 12)</b>		