Econ 400: Economic Statistics

Summer II, 2017

Syllabus

Instructor:	Alina Malkova
Email:	amalkova@live.unc.edu
Website:	sakai.unc.edu
Office hours:	Phillips Annex 205, Monday through Thursday 12:00pm – 01:00pm
Classroom: Time:	Dey Hall 307 Monday through Friday from 9:45am – 11:15am
Materials:	Groebner, Shannon, Fry, and Smith: <u>Business Statistics: A Decision-Making</u> <u>Approach</u> , 9th ed. Intercooled Stata (Version 12 or later) MyStatlab with ebook
Background:	Introductory economics (101 or equivalent)/ STOR 155/ Math 231

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 five general topics:

- 1. Descriptive statistics
- 2. Random variables
- 3. Sampling distributions
- 4. Hypothesis testing
- 5. 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 <u>two</u> kinds of Homework assignments: Problem Sets and Stata Assignments. Problem Sets come from MyStatlab and must be turned on the due date. Stata Assignments must be turned in on Sakai by <u>midnight</u> 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 <u>eight</u> assignments (4 Problem Sets and 4 Stata Assignments). In order to get your homework graded efficiently, your homework should be submitted <u>on time</u> and <u>in order</u> and written <u>clearly</u> with pages <u>attached</u>. 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 <u>three</u> exams (two midterms and a Final) and a quiz on Probability Theory. This quiz is designed to assess your retention of basic probability theory which will not be covered

during lecture. The material on this quiz will cover topics in GSFS Ch.4. Refer to *Grading* for the dates of the exams. If you have to miss a midterm <u>there is no way to make up that exam</u>. 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 <u>obligatory</u> (University policy).

Grading: Your grade is based on two exams, a quiz and the eight valid homework assignments:

Homework assignments (25%)		
Midterm (15%):	Tuesday, July 11	
Midterm (15%):	Monday, July 24	
Quiz (5%):	Thursday, June 29	
Final exam (40%):	Monday, July 31 (8am-11am)	
A (≥ 90)		
B ($\geq 80, < 90$)		
$C (\geq 70, < 80)$		
D ($\geq 60, < 70$)		
	Homework assignment Midterm (15%): Midterm (15%): Quiz (5%): Final exam (40%): 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. For those of you requesting accommodation in the time or location of in-class grading, be sure as well to contact the Office of Accessibility Resources and Services (accessibility.unc.edu) at the beginning of the summer session.

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.). You should consult the instructions at honor.unc.edu for details of your, and my, responsibilities under the Honor Code.

Date	Subject	Chapters	Homeworks
June 26	Describing Data	1-2	
27	Describing Data	2-3	SA1
28	Describing Data	3	
29	Discrete Prob. Distributions /Quiz on Probability Theory	5/4	
30	Discrete Prob. Distributions	5	

Class Schedule:

1				
2			PS1	
3	Continuous Distributions	6		
4	No class			
5	Sampling Distributions	7	SA2	
6	Sampling Distributions	7		
7	Estimating Means & Proportions	8		
8				
9			PS2	
10	Estimating Means & Proportions	8		
11	Exam I (Covers chapters 1-3, 5-8)			
12	Testing Hypotheses	9		
13	Testing Hypotheses	9	SA3	
14	Testing Hypotheses	10		
15				
16			PS3	
17	Testing Hypotheses	10-11		
18	Linear Regression	14		
19	Linear Regression	14	SA4	
20	Linear Regression	14		
21	Multiple Regression	15		
22				
23				
24	Exam II (Covers chapters 9-11, 14)			
25	Multiple Regression	15		

26	Multiple Regression	15	PS4
27	Topics in Multiple Regression	TBA	
28	No class		
29			
30			
July 31, 8am- 11am	Final (Covers chapters 1-3, 5-11, 14, 15)		