Econ 400: Economic Statistics

Summer II, 2020

Syllabus

Instructor:	Andrey Minaev
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Website:	sakai.unc.edu
Office hours:	Schedule via calendly
Classroom:	https://unc.zoom.us/j/98593079297
Time:	Monday through Friday 9:45am – 11:15am
Materials:	Groebner, Shannon, Fry, and Smith: Business Statistics: A Decision-Making Approach, 9th ed. Intercooled Stata (Version 12 or later)
Background:	ECON 101, STOR 155, and one of MATH 152, 231, STOR 112 or 113

Course Description: The purpose of this course is to explore the foundations of Economic Statistics and Econometrics, focusing on statistical techniques, application of statistical and probabilistic methods to real-world situations, and data analysis.

The course covers five general topics:

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

Class Attendance: Attendance is strongly encouraged, but I don't monitor attendance formally.

Textbook: The recommended textbook is *Business Statistics: A Decision-Making Approach* by Groebner, Shannon, Fry, and Smith. But you might find additional or alternative textbooks helpful in their treatment of the subject matter and the availability of extra problems.

Poll Everywhere: "In-class polls" will be conducted during each class using Poll Everywhere. Participation requires that you have access to a cell phone texting plan or the internet. You must register with Poll Everywhere prior to our first poll on June 25th . Registration instructions can be found by following this link: http://help.unc.edu/help/poll-everywhere-faq/. If you do not register properly, then your polls will not be counted. Be sure under "How should UNC-CH Admin identify you?" that you enter your PID and onyen using the format PID_onyen. This is case sensitive, so use only lowercase letters for your onyen. In-class polls are to be done in class, and it is a violation of the honor code to answer elsewhere.

Assignments: There will be two kinds of Homework assignments: Problem Sets and Stata Assignments. Problem Sets (PS) and Stata Assignments (SA) would be posted on Sakai and must be turned in on Gradescope (Entry Code: M3NDPN) by midnight on the due date (I will guide you on how to do this when I assign the first SA and PS). There will be a total of eight assignments (4 PS and 4 SA). 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. Homework 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 two exams, a quiz and the eight valid homework assignments:

In-class polls (5%)
Homework assignments (25%)
Midterm (15%): Tuesday, July 9
Midterm (15%): Monday, July 22
Final exam (40%): Monday, July 29 (8am-11am)

Grades:

A (≥ 90)

B ($\geq 80, < 90$)

C ($\geq 70, < 80$)

D ($\geq 60, < 70$)

Class Schedule:

Date	Subject	Chapters	Homeworks
June 22	Describing Data	1-2	
23	Describing Data	2-3	
24	Describing Data	3	SA1
25	Discrete Prob. Distributions /Practicum on Probability Theory	5/4	
26	Discrete Prob. Distributions	5	
27			
28			PS1
29	Continuous Distributions	6	
30	Sampling Distributions	7	
July 1	Sampling Distributions	7	SA2
2	Estimating Means & Proportions	8	
3	No class		
4			

5			PS2
6	Estimating Means & Proportions	8	
7	**Exam I (Covers chapters 1-3, 5-8)**		
8	Testing Hypotheses	9	
9	Testing Hypotheses	9	SA3
10	Testing Hypotheses	10	
11			
12			PS3
13	Testing Hypotheses	10-11	
14	Linear Regression	14	
15	Linear Regression	14	SA4
16	Linear Regression	14	
17	Multiple Regression	15	
18			
19			
20	**Exam II (Covers chapters 9-11, 14)**		
21	Multiple Regression	15	
22	Multiple Regression	15	PS4
23	Topics in Multiple Regression	TBA	
24	No class		
25			
26			
July 27, 8am-11am	**Final (Covers chapters 1-3, 5-11, 14, 15)**		