ECON 400: Introduction to Statistics and Econometrics
Fall 2018

Instructor:	Dr. Stephen Lich
Email:	swlt@email.unc.edu
Office hours:	Gardner 202, Monday & Wednesday 1:30 – 2:30

Teaching assistants: Mr. Robby Bringe, Mr. Lucas Mariani, Mr. Yan Qian, Mr. Mauricio Salazar

Lectures (400-001):	Murphey Hall 116, Tuesdays & Thursdays 11:00 – 12:15
Lectures (400-002):	Murphey Hall 116, Tuesdays & Thursdays 12:30 – 1:45
Tutorial sessions:	Gardner Hall *[TBD]*, Sunday through Wednesday afternoons *[TBD]*
Materials:	Mirer: Economic Statistics and Econometrics, 3rd ed. (recommended)
	Intercooled Stata (information: ordering Stata/IC on student plan)
Background:	ECON 101, Calculus (STOR 113, MATH 152, MATH 231), Statistics (STOR 155)

Content: This course provides students with an understanding of statistical vocabulary and techniques, the ability to apply a statistical and probabilistic mindset to economic situations, and the skills to analyze data and draw conclusions. At the end of the course, students will have the skills to do multivariate linear regression, econometric modeling, and statistical inference at an intermediate level. Students will also be able to apply their skills to data analysis in other courses. The course covers five general topics:

1. Descriptive statistics
2. Probability, sampling, and hypothesis testing
3. Regression and inference
4. Specification
5. Limited dependent variable models

Schedule: All lectures will be held at the scheduled time, with holidays for Fall Break and Thanksgiving. Graded assessments will be:

Quizzes (online):	Sept. 4th & 17th, Oct. 8th & 22nd, Nov. 12th & 26th (by midnight)	
Midterm exam:	Tues., Sept. 25th	
Midterm exam:	Tues., Oct. 30th	
Final exam (400-002, meeting Tu./Th. 12:30):	Fri., Dec. 7th, 12:00 – 3:00	
Final exam (400-001 meeting Tu./Th. 11:00):	Thurs., Dec. 13th, 12:00 – 2:00	

The dates of the exams are <u>almost certain</u>. Other dates (including quizzes and especially assignments) on the Sakai calendar are tentative. I will announce due dates for assignments at least one week in advance. The last homework assignment might be due at the final exam.

Attendance and absences: I expect regular attendance at lectures, but I do not require documentation of absences from lecture. When students are absent, they should still (if feasible and fair) attempt to submit assignments on the due date, keep track of announcements, and arrange for lecture notes. This class complies with the Policy on University Approved Absences (Faculty Council Resolution 2018-1).

Announcements and emails: When I make announcements (about due dates, changes to the schedule, and such), I will write them on the board at the start of lecture, or I will email through Sakai.

Homework assignments: The course has approximately five traditional written problem sets and five computer assignments using the software Stata. These assignments are designed as practical learning experiences and reinforcement. They are evaluated primarily on technique and completion The written problem sets will either be self-graded online (if functional) or submitted in the classroom on the due date. Students should <u>not</u> turn any assignment in at my office or the economics department office. I do grant extensions on homework assignments, without penalty, under reasonable circumstances. Students should upload Stata assignments to Sakai as a PDF document. The last homework assignment might be due after the last day of class.

Grading: Grades are based on three exams, six quizzes, and approximately ten homework assignments. The course grade is a weighted average of the exams and quiz grades. Quizzes count for 5% of the course grade. The midterms and final are weighted (25%, 25%, 45%) or (15%, 15%, and 65%), whichever is more favorable to the student. If a student has a University-excused absence, the student may request a make-

up exam or choose to miss the exam. The final exam is given in compliance with UNC final exam regulations and according to the UNC Final Exam calendar. A student may miss one quiz, for any reason, without penalty. If all quizzes are completed, then the lowest grade is dropped. Homework is not calculated into the grade directly. However, your course grade will be reduced by a third of a letter grade for each homework assignment with a score below 60%.

Extra credit: During the semester, there may be opportunities for extra credit. I will always announce extra credit publicly and make it available to the entire class.

Academic integrity and etiquette:

Homework: Students may consult each other and collaborate on homework assignments. They may seek assistance from the instructor, the teaching assistants, or a tutor. However, each student must do the problems on his or her own, and each student must submit a unique assignment. Students may use calculators, except for their statistical functions.

Late assignments: Students turning in late assignments may <u>not</u> use any resources that were unavailable to their classmates at the regular due date.

Quizzes: Students may use their textbook, the study guide and lecture notes, and their own notes. They may <u>not</u> work together, and they may <u>not</u> receive assistance from other people.

Exams: Students may use appropriate statistical tables and basic calculators.

Archives: Students may <u>not</u> acquire my documents from, or place my documents into, any online or physical archive, other than my course website on Sakai.

Technology: Students may <u>not</u> use laptops, tablets, phones, or similar devices during the lecture, expect when I specifically permit them, or when they are prescribed accessibility devices. Disruptive behavior violates section II.C.1.k of the Honor Code. (And, for your own sake, it interferes with your learning.) I may deduct up to 1 point from a student's course average for each violation of this policy, after a warning.

Externalities: Avoid the negative ones; create the positive ones.

Help resources:

Tutorials: Students can get answers to questions and homework help at the tutorial sessions. These tutorials are held every day in Gardner [*TBD*], from [*TBD-TBD*], Sunday through Wednesday. A teaching assistant will be available. These tutorials are unstructured and completely optional. Students are welcome to come to this room simply to work on their assignments, and a teaching assistant will be available to provide help.

Office hours: Students can also receive help and answers during my office hours. I can also address administrative issues or other special situations. I am always available in Gardner 202 between 1:30 and 3:00 on Mondays and Wednesdays. Students may simply drop in, or they may ask for priority at some particular time. I can also arrange to meet at other times.

Email: I can answer quick questions and administrative issues through email, but I cannot provide detailed homework help through email. (My teaching assistants do not provide help through email.)

Before and after class: I can answer only very quick questions.

The Learning Center: The Learning Center has academic counselors who can give general advice about improving study habits, note-taking skills, and other academic strategies. In some semesters, free peer tutoring is available in Dey Hall. They also maintain a list of private tutors available for hire.

The EconAid Center: An excellent resource, with tutoring tailored to economics courses. Some tutors are specifically familiar with ECON 400 and Stata.

Syllabus changes: The instructor reserves the right to make changes to the syllabus, including due dates and test dates. Changes will be announced as early as possible.

<center>**Policy Details**</center>

Adding students: ECON 400 is usually filled to the enrollment capacity. During the first week of class, I add as many additional students as I can accommodate. I rarely add students after the first week of class.

Grade Calculation. The course grade is based on three exams, approximately ten homework assignments, and six quizzes. There are several elements to calculating the grade.

I assign traditional ordinal letter grades (…, B+, B, B-,…) to the exams. This conversion is not directly based on percentage of correct answers. These letter grades represent performance that is excellent, good, satisfactory, and so forth. They are essentially the "curved" grade. When I calculate the course grade, I convert numerical values for the letters (…, $88\frac{1}{3}$, 85, $81\frac{2}{3}$,…). I average grades using the weights in the syllabus. This overall average is then translated back into a letter grade (B+ is $86\frac{2}{3}$ to 90, B is $83\frac{1}{3}$ to $86\frac{2}{3}$, B- is 80 to $83\frac{1}{3}$, and so forth).

A student has the option to request that all exams are counted as strict percentages, foregoing the letter grade system altogether.

The value of extra credit assignments is at my discretion. Often, they have counted for a third or half of a point added to the course score. In my opinion, they serve to round up grades that are close to a cutoff point. (For example, adding 0.5 point to an average of 89.7 makes a 90.2, changing the course grade from a B+ to an A–.)

Grading Questions and Appeals. I believe strongly that it is your right to receive an accurate and fair grade in the course. Students may request clarification on grading and may appeal the grading of exams. I request that you follow my procedure for any grade appeal. After each exam, I will post a set of solutions. A student should review these solutions and wait at least one day before asking me to regrade. The student should identify which specific questions were misgraded and how. I will consider grade appeals based on errors in grading or on an alternative legitimate interpretation of the question. I am unlikely to change a grade because of a difference of opinion about partial credit. When I review a question, I might lower the grade, since I occasionally notice additional errors. However, my intent is not to penalize or discourage grade appeals. I request that students submit all grade appeals in a timely manner, usually within two to three weeks.

Homework Submissions. Some assignments are problem sets, on paper, and some are programming assignments in Stata. Students should submit paper problem sets in class on the day that they are due, unless they have been given an extension. I encourage students to retain a copy of their submissions for their own records. Late homework submissions (even with permission) may be graded and returned later than the rest of the class. Programming assignments are submitted online, through Sakai. All homework submissions should be neat, organized, and clear responses to the questions. They should show the appropriate steps to arrive at the final answer. They should not contain scratch work or erroneous attempts. The Stata

assignments should be PDF files, using a monospaced font and no line-wrapping. I may deduct points if the submission is difficult to read.

Missed Exams. If a student misses a midterm exam, with permission, then the student has an option to take a make-up exam or skip the exam entirely. If skipped, the remaining midterm counts for 35% of the grade and the final counts for 60% of the grade. If a student misses both midterms, then the final exam counts for 95% of the course grade.

Academic Integrity. I take integrity seriously. In my experience, some students underestimate the importance of integrity. In ECON 400, I see the most problems with duplicated homework submissions, unauthorized collaboration on quizzes, and occasional abuse of calculators. I do report breaches of academic integrity to the Office of Student Conduct. Further, I will not award credit for any assignment on which I see clear and convincing evidence of unauthorized assistance.