

ECON 3112-001 and 002

Econometrics

Spring 2020

Instructor: Dr. Carol O. Stivender

"Try not to have a good time . . . this is supposed to be educational."

Lucy, from "Peanuts"

This course can change your life. Seriously.

Dr. Stivender

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Office Hours: Tue and Thur: 11:30am – 12:45pm
and by appointment as needed.

Course Materials: Canvas

Text: Econometrics: Basic and Applied - Johnson, Johnson and Buce

- available on Canvas in pdf form, or used online for cheap. For example: http://www.amazon.com/Econometrics-Aaron-C-Jr-Johnson/dp/0023609206/ref=sr_1_1?ie=UTF8&qid=1439500359&sr=8-1&keywords=econometrics+basic+and+applied

Course Description: Prerequisites: ECON 2101 and 2102, MATH 1120 or 1241, STAT 1220 and INFO 2130. Econometric techniques, including simple and multiple least squares regression with problems and analyses.

Course Objectives: To help students understand how the tools of statistics are used to conduct research and understand data relating to business and social economic issues.

Course Policies

Academic Integrity:

Students have the responsibility to know and observe the requirements of The UNC Charlotte Code of Student Academic Integrity. (This code forbids cheating, fabrication or falsification of information, multiple submissions of academic work, plagiarism, abuse of academic materials, and complicity in academic dishonesty. Any special requirements or permission regarding academic integrity in this course will be stated by the instructor and are binding on the students. Academic evaluations in this course include a judgment that the student's work is free from academic dishonesty of any type; and grades in this course therefore should be and will be adversely affected by academic dishonesty. Students who violate the code can be expelled from UNC Charlotte. The normal penalty for a first offense is zero credit on the work involving dishonesty and further substantial reduction of the course grade. In almost all cases, the course grade is reduced to F. Copies of the code can be obtained from the Dean of Students Office. Standards of academic integrity will be enforced in this course. Students are expected to report cases of academic dishonesty to the course instructor.

Attendance:

Econometric research shows us that there is an unambiguous positive relationship between class attendance and class outcomes (grades). One can assume, then, that there is a negative relationship between skipping class and grades (students that cut class more will likely make lower test grades). Therefore, since you are the ones benefiting from attendance I will leave the decision up to you, and I will not be requiring attendance in class. However, I will be taking attendance so I can use the data to test the correlation between attendance and outcomes at the end of the semester. And if you attend every class period and stay the entire time I will add exactly 3 percentage points to your final calculated score. I suspect that if you attend every class period you won't NEED the additional points.

Students are expected to attend, to arrive on time and to stay the entire class period. If you do not plan to stay the entire class period, please be kind enough to let me know that you will need to leave early, and choose a seat near the exit. Otherwise, please do not disrupt your classmates by leaving the classroom before class is over.

There are no make-ups for tests or assignments except for students with written statements from university officials stating that they are participating in university business. When missing class, students will be responsible for all information and materials presented in class, and are expected to obtain class notes or assignments from other students in the class. In other words, your primary source of information is the classroom – if something is announced in class I am under no obligation to also post that information online or notify the class via e-mail. Please do NOT e-mail me to say, "I cut your class today - what did I miss?" I won't answer.

Since I will not be requiring attendance, you do not need to notify me when you will be missing class for doctor appointments, court dates, or any other reason.

Make-up work and late work: There are NO makeup tests, homework or other assignments except for students away representing the university. So get your work done EARLY (not just in time or late) and take good care of yourself.

STATA Statistical Software: The software we will use in class and for projects is *STATA*, and is available on all Belk College computers. If you prefer having access to *STATA* on your own computer you can take advantage of very good prices (from \$48 for 6-month access) for UNC Charlotte students through the Campus GradPlan on *STATA*'s website:

<http://www.stata.com/order/new/edu/gradplans/student-pricing/>

Grading

Tests: Each of three tests could be a mixture of multiple choice, short answer, essay, interpretation and problem questions, and will cover chapters and material determined as we go. Students should be prepared for the tests by bringing a non-graphing calculator and pencils. I do not allow sharing of calculators during exams, so if you do not bring your calculator you will be doing the math the old-fashioned way. Three tests constitute a total of 60 percent of the final grade.

Homework: Homework problems will be assigned regularly. The homework is intended to reinforce your understanding of the material, not to be labor intensive just for homework's sake. Homework will be graded (sometimes for content, sometimes just credit for doing it), and will constitute 20 percent of the final grade. No late homework will be accepted. Do yourself a favor and do all of the homework early. Don't miss a deadline.

Project: The modeling project will evolve throughout the semester as we cover material required to complete it. The project requires you and a well-chosen partner to develop a research question and design an econometric model to answer the question. The steps required for the project include (due dates to be determined):

1. Formulating the research question
2. Defining the economic model and resulting econometric model
3. Building the data set required to address the question
4. Estimating the econometric model in Stata and interpreting the results

This project constitutes 20 percent of the final grade. I will give you details as we go about how I want the information submitted to me – whether email or on paper. We will discuss the project all semester as we reach milestones in the material that you need for completing the project.

Calculating the grade: Final letter grades will be calculated using three test scores, (including any extra credit points that may have been earned during the semester), the percentage earned of total homework points available, and the semester project:

Final grade = $.60[(\text{Test 1} + \text{Test 2} + \text{Test 3} + \text{XC})/3] + .20(\text{HW points earned}/\text{HW points possible}) + .20(\text{Final Project Score})$

For example, assume you earned 75, 65 and 82 on the midterm tests, a 90 on the final project, 5 extra credit points, and got 85 percent of the total possible HW points. Your grade would be:

$$.60[(75 + 65 + 82 + 5)/3] + .20(90) + .20(85)$$

$$45.4 + 18.0 + 17.0 = \mathbf{80.4} \quad \text{or } (75 + 65 + 82 + 5 + 90 + 85)/5 = 80.4$$

| Percentage | Letter Grade |
|--------------|--------------|
| 90-100 | A |
| 80-89 | B |
| 70-79 | C |
| 60-69 | D |
| Less than 60 | F |
| Withdrawal | W |

Test scores will NOT be rounded up. *Rounding of final course averages only* will follow the standard practice (only .5 or above will be rounded up to the next whole number).

I will regularly address the grading policies in class to ensure that all of you understand it.

Students who arrive late for tests will be permitted to take the test provided that no student has turned in their paper prior to the student's arrival. Once a paper has been turned in, late arriving students will not be permitted to begin the test or exam. A student who begins a test late will not be given extra time at the end of the regular test or examination period.

Cell phones: Please turn off cell phones before class begins. If you are expecting a life-or-death phone call, let me know. Otherwise, NO PHONES! It is very distracting for me and for those around you. As you will soon see, I am easily distracted, and if I get off topic, we may never get back.

The Belk College of Business strives to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socioeconomic status.

Calendar is attached. ALL DATES are tentative and subject to change at my discretion. I will give you plenty of warning. Usually.

I will be posting detailed homework guidelines/due dates and project guidelines on Canvas.

(TENTATIVE)

January 2020

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|-----------------|-----------------------------------|----------------------------|--------------------------------------|--------|----------|--------|
| | | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 OUR FIRST CLASS | 10 | 11 | 12 |
| 13 | 14 INTRODUCTION | 15 LAST DAY TO ADD/DROP | 16 CH 1 – INTRO TO L;EAST SQUARES | 17 | 18 | 19 |
| 20 NO SCHOOL | 21 CH 2 – WHAT IS ECONOMETRICS | 22 | 23 CH 3 – LEAST SQUARES THEORY | 24 | 25 | 26 |
| 27 | 28 DATA DISCUSSION | 29 | 30 PRACTICE | 31 | 1 FEB | 2 |

February 2020

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|--------|---|-----------|--------------------------------------|--------|----------|--------|
| 3 | 4 PRACTICE | 5 | 6 CATCHUP, REVIEW | 7 | 8 | 9 |
| 10 | 11 EXCEL/STATA LESSON #1 (IN LAB) | 12 | 13 TEST 1 | 14 | 15 | 16 |
| 17 | 18 CH 5 - CORRELATION | 19 | 20 CH 9 -DUMMIES &INTERACTIONS | 21 | 22 | 23 |
| 24 | 25 CH 9 -DUMMIES &INTERACTIONS CONT | 26 | 27 PRACTICE, CATCH UP | 28 | 29 | 1 MAR |

March 2020

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|--------------------------|---|--------------------------|----------------------------------|--------------------------|----------|--------|
| 2 <i>SPRING BREAK</i> | 3 <i>SPRING BREAK</i> | 4 <i>SPRING BREAK</i> | 5 <i>SPRING BREAK</i> | 6 <i>SPRING BREAK</i> | 7 | 8 |
| 9 | 10 PRACTICE | 11 | 12 CH 11 – FUNCTIONAL FORM | 13 | 14 | 15 |
| 16 | 17 CH 11 – FUNCTIONAL FORM (CONT) | 18 | 19 PRACTICE | 20 | 21 | 22 |
| 23 | 24 EXCEL/STATA LESSON #2 (IN LAB) | 25 | 26 TEST 2 | 27 | 28 | 29 |
| 30 | 31 BINARY CHOICE MODELS | | | | | |

April 2020

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|--------|---|-----------|---------------------------|-------------------|----------|--------|
| | | 1 | 2 BINARY CHOICE MODELS | 3 | 4 | 5 |
| 6 | 7 CH 10 – SCALING, PRACTICE | 8 | 9 TBD | 10 | 11 | 12 |
| 13 | 14 EXCEL/STATA LESSON 3 (IN LAB) | 15 | 16 TEST #3 | 17 | 18 | 19 |
| 20 | 21 TBD | 22 | 23 TBD | 24 | 25 | 26 |
| 27 | 28 LAST CLASS – PROJECT DUE | 29 | 30 | 1 MAY | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 GRAD | | |

