

BOSTON UNIVERSITY

Economics 204: Empirical Economics II

Class Time: Mon-Tue-Wed 2:00-4:30pm, HAR 240

Instructor: Gianluca Russo
Office Hours: Mon 4:30-5:30pm
Tue 4:30-5:30pm
Office hours will be kept in class
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Course Description: This is the second course in the introductory level sequence in empirical economic analysis, and will focus on regression analysis (econometrics).

Prerequisites: EC101 Introductory Microeconomic Analysis *and* EC102 Introductory Macroeconomic Analysis, *and* EC203 (or EC305 or the equivalent).

Course Web Site: All course documents and announcements will be posted on the course site, which can be accessed at <https://learn.bu.edu/>.

Textbooks: James H. Stock and Mark W. Watson, “*Introduction to Econometrics*,” Fourth Edition (Updated Edition).

Software (Stata): There are now several options for using Stata, including a few that are available through BU so that you do not have to buy it. (Of course, there are tradeoffs to using it on campus vs. having a version on your own computer, so make sure you think about these things carefully. You could also consider using it on campus for the first assignment and seeing how it goes.)

***If you would like to purchase it, it can be ordered online at:

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

For the class you should purchase Stata/IC 15 (\$198 for a perpetual license, \$89 for a one-year license, \$45 for 6 months) which has no limitations on the size of the data set used, and which would be very useful for any type of analysis you might want to do in the future, either for an internship or a senior honors thesis. The software includes extensive documentation in pdf format, including the introductory “Getting Started with Stata” manual which will be referred to in class. *We will start using Stata right away, so students should be sure to buy their copy of Stata by the SECOND week of classes.*

MyEconLab is also required (access purchased through bookstore or separately through MyEconLab. Registration and purchasing instructions are available on Blackboard under the “Information” tab.

Office Hours and Appointments: If you have a course or work conflict with the scheduled time for my office hours please contact me and we’ll try to schedule another time to meet (email is the best way to make this request so that I can check my schedule).

Assigned Problems: A substantial amount of homework is assigned in this course because proficiency in statistics occurs with much practice. Also, it is encouraged that students work together on the homework assignments because better learning of the material usually occurs through student discussion and interaction. Assignments will be posted on the MyEconLab website.

Group Research Paper and Final Presentation: Students will have the chance to explore a research question they choose. Each group will have opportunity to pose a question, develop a hypothesis, and then apply the econometric skills developed in class to analyze the issue empirically. Details about the paper to replicate will be discussed in class. At the end of the course each group will be required to present their research project.

Exams: All exams will be based on questions drawn from material covered in the text, lectures, and problem sets. In other words, all material associated with the course may appear on exams, including lecture material that is not in the text, so students should maintain a good set of class notes. Due to past problems with cheating on exams, students may NOT use a graphing calculator, or any other programmable calculator. Scientific, Financial and Simple Calculators are permitted.

Exam Dates: *The final exam is scheduled for the last day of class August 7th* in the same room as lectures. The midterm will also be held in the same room as lectures, during regular class time. The date for the midterm, including material covered, will be announced in class and posted on the course site at least two weeks before the exam will be held.

Makeup Exams: There will be no makeup exams for the midterm. If you miss it due to a documented medical emergency (a signed note from a doctor, on their letterhead, indicating that you were seen *on the day of the exam* will be required), then the points for it will be added to your final exam. Also, please note that under no circumstances will the final exam or midterm be administered on a different date than scheduled because of travel plans or family events (if, though, there is a severe family medical crisis, you should contact me about this and I may approve shifting points for a midterm to your final exam). Any changes to an announced exam date, time, or place will be announced in class and posted on the course website (Emails will be the preferred way of communicating, outside class time. Make sure you can receive them). It is the responsibility of the student to be aware of these changes. If a student misses the final due to a documented illness I must be contacted on the day of the exam and every effort must be made to take the makeup final exam as soon as possible (furthermore, no other exams may be taken before the makeup exam for this course is taken, unless you first secure my approval to do so). If a student returns home without first contacting me, no makeup will be given and s/he will receive a zero on the final exam.

Grades: Course grades will be based on one midterm exam (20 points), a final exam (35 points), a group research paper (20 points from the paper + 5 from the presentation) and homework assignments using MyEconLab and Stata (20 points total). If a student scores higher on the final exam than on a midterm, that midterm grade will only count for 10 points and the final exam will count for the additional points (45). Your final grade will be based on a curve reflecting the Final Course Score, with the median score receiving a grade of B-.

Attendance: Students are required to attend lectures and attendance may be taken (repeated absences may result in a reduced course grade). If you miss class, you are responsible for getting lecture notes from a classmate. The structure of knowledge in econometrics is strongly hierarchic in that each successive lecture tends to build on prior material in a rather systematic fashion. As such it is very easy to fall behind if you miss a class and do not study the missed material *before* the subsequent lecture.

NO LAPTOPS OR PHONES ARE TO BE USED IN CLASS EXCEPT FOR ON “STATA TIME”.

Class Preparation and Participation: The best way to learn the material (in addition to solving problems) is to read the assigned chapters *before* the lecture, to **ask questions** *during* the lecture, and then to look over the chapter again and your notes *after* the lecture.

Educational Resource Center (ERC): The Boston University ERC provides peer tutoring services. It is located at 1 University Road (the Sargent Gym Building), Suite 150. The phone number is 3-7077, and the URL for their site is <http://www.bu.edu/erc>.

Students with Documented Disabilities: If you have a disability that necessitates extra time for exams, or any other accommodations, you will need to give me a note from the BU office of Disabilities Services *at least two weeks before the first midterm* so that I can make arrangements.

Policy on Cheating: Cheating on exams will result in a zero grade for that exam (and this grade will fully count in the final course grade calculation regardless of the grade on the final) and will be reported to the Dean’s office. In this regard it is important to remind everyone that students are responsible to know and understand the provisions of the CAS Academic Conduct Code.

Computers in the Classroom: Student are encouraged to bring their computers to the classroom in order to use Stata. Please note, though, that it is **PROHIBITED** to use your computers during lecture to browse the web, use email, check your Facebook page (who uses Facebook anymore??), shop on Amazon (unless you’re buying something for me), and so forth.

Statistical Background: While selective statistical concepts will be reviewed (and extended) in the context of regression analysis, students are expected to begin EC204 with a working knowledge of the material covered in EC203 (or the equivalent).

Course Outline

Chapter 1 – Economic Questions and Data

Chapters 2 & 3: Review of Probability and Statistics

Chapter 4 – Linear Regression with One Regressor

Chapter 5 – Regression with a Single Regressor: Hypothesis Tests and Confidence Intervals

Chapter 6 – Linear Regression with Multiple Regressors

Chapter 7 – Hypothesis Tests and Confidence Intervals in Multiple Regression

Chapter 8 – Nonlinear Regression Functions

Chapter 9 – Assessing Studies Based on Multiple Regression
Chapter 11 – Regression with a Binary Dependent Variable (Section 11.1 only)
Chapter 12 – Instrumental Variables Regression
Chapter 13 – Experiments and Quasi-Experiments (Time Permitting)

***** FINAL EXAM: Last Day of Class: 08/07/2019 *****