ECONOMICS 508  
Econometrics  
Fall 2019

Class Time: Mondays and Wednesdays 10:10 – 11:25 a.m.
Room: KCB 102

Instructor: Andre Switala
Office: Economics Department, Room 434
Office Hours: Tuesdays 2:00 – 3:00 p.m., Thursdays 9:00 – 10:00 a.m. / by appointment
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Email: switala@bu.edu (preferred)
If you email or text me please include EC508 in the subject line or message.

TA: Julio Ortiz
Office Hours: Mondays 2:00 – 3:00 p.m., Wednesdays 1:30 – 2:30 p.m.
Office: Economics Department, Principles Center (basement)
Email: jlortiz@bu.edu

Course Description

Econometrics uses statistical methods to describe and study the relationship between economic variables. Rather than just describing in words or models how variables are related, econometrics and its tools will allow us to move towards quantitative analysis. That is, we will ask empirically the question about how important one variable is in explaining variation in another. For example, we can ask the question about what is more important in explaining differences in income levels or growth rates across countries – the quantity or quality of education? We can also estimate parameters of models or the size of effects that we intuitively think should exist. For example, what is the return to education (by how much does the yearly income increase on average for an additional year of education)? The studied techniques are dependent on certain assumptions which may be violated. Part of the course therefore involves what techniques to use if these violations occur. The course assumes a basic knowledge of statistical analysis, e.g., hypothesis testing and interval estimation and builds upon this knowledge. The goal of this course is to familiarize you with the concepts of econometrics and how you can apply them to new empirical questions.

Prerequisites: Graduate Students: EC507, Undergraduate Students: EC204 or EC304

Recommended Textbook:


The book is available on various online retailers. You can also opt to purchase or rent e-book versions of the book, for example through www.vitalsource.com.

You will also be responsible for those topics discussed in class which are not in the book.

There are many other good textbooks in econometrics out there. The main challenge is the inconsistency of notation, which requires some additional reading and getting used to. Also, topics are sometimes covered slightly differently. For example, our textbook covers the issue of heteroskedasticity and how to detect it, while others assume it and simply want to control for it.
Software

For some of the homework problems you will be required to do data analysis. I will also show some regression results using STATA output in class. STATA is a standard software package used in my econometric applications. I will provide information about the availability of STATA on campus but there are also temporary licenses that students can purchase. You would need at least STATA/IC:

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

We will start using STATA early in the course, so being familiar with it early on is useful.

I personally haven’t used R, which is free but uses a somewhat different interface. However, your TA has used R before and should be able to help you with it if you choose to use it. It seems that there is some demand for R knowledge in the labor market (based on feedback from previous students) but I leave it up to you.

Course Grading

Course grades will be based on student’s performance in five categories. Those categories and the weights attached to each of them are:

- Problem Sets : 20%
- Midterm : 30%
- Final : 50%

The midterm is scheduled for Wednesday, October 23\textsuperscript{rd}. The final exam is scheduled for Monday, December 16\textsuperscript{th}, 9:00 – 11:00 a.m.

Please Note: Under no circumstances will “extra credit” work be given!

Exam Goals and Policy:

All exams will aim to test your understanding of the learned concepts. Students are expected to take all exams when scheduled. Excused absences will be granted in case of illness or family emergency. Students are required to notify me about an exam absence prior to the exam, for example through email or text message. Evidence of the emergency through documentation is required. Excuses after the fact, that is after the exam has been taken or given are generally not accepted!

Regrade policy:

If you do not agree with your score, you may ask me for a regrade. I will personally regrade the entire test and you may lose points as well as gain them. Note that I tend to be harsher than the TA.

Homework Goals and Policy:

You are encouraged to work in groups and should indicate on your problem sets the names of other students you worked with. However, every student should hand in their own written or typed solution. This policy should not be understood as an incentive to simply copy the solution
from one of your classmates. Working on and thinking about the homework solutions on your own first will be an important determinant of your success in the exams and the entire course.

Homework will simply be graded as ✔+, ✔, ✔- or 0. Your answers don’t need to be perfectly correct for a ✔+, but mostly so. ✔- will be given to submissions with severe deficiencies, 0 only if nothing is submitted at all.

No late submissions will be accepted. If you miss handing in a problem set due to illness etc. follow the exam policy on excused absences.

Class participation and attendance:

There is no individual grade for class participation in this course. However, class participation is strongly encouraged and questions or comments are always welcome.

Services for Students with Disabilities

Students with disabilities (learning, medical, physical) who wish to receive academic accommodations or auxiliary aids are required to submit the appropriate documentation to verify their eligibility under the Americans with Disabilities Act of 1990 (ADA). Students should be in contact with the BU Office of Disability Services (www.bu.edu/disability). Students who are approved to received special accommodations should see me as soon as possible, preferably after the first class.

Academic Conduct

The Boston University Academic Conduct Code is available at: http://www.bu.edu/academics/resources/academic-conduct-code/

You need to read the CAS Academic Conduct Code. Academic misconduct involves not only direct cheating on tests, but some more subtle acts as well. All work handed in for credit must be your own, with the exception that you may quote or paraphrase from other sources if you also cite the reference and page number. It is generally not permissible to use another student's work, even if you cite that work. However, for the problem sets in this class collaborative work is permitted as outlined in the homework policy above. I will report cases of suspected academic misconduct to the Dean's Office. Confirmed cases of misconduct will result in a failing grade on the exam or assignment.

Other Important Dates:

Last Day to add a class: September 16th
Last Day to drop a class without a “W” grade: October 7th, with a “W” grade: November 8th
No class meetings on: October 15th (BU Monday Schedule), November 28th (Thanksgiving Break)
Course Outline:

The following represents a tentative outline of the course. The topics given below are the core topics we aim to cover during the semester. However, other chapters or parts of them may be covered as well! I shall point out when those additions are made. In addition to the topics below we will use and review concepts of statistics whenever needed in class. This material is covered in appendices B and C. I will announce the chapters that will be covered in each class at the end of the previous class.

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