CAS EC204 B1: Empirical Economics 2

Summer 2, 2023: July 5 - August 15

Instructor:	Stella (Seoyun) Hong	Email: seoyun@bu.edu
Class Hours:	M,T,W 10:00 am - 12:30 pm	Classroom: CAS 228
Office Hours:	M 2:00 - 4:00 pm	Classroom: SSW B17A
Teaching Fellow:	Byeo Rhee Bak	Email: brbak@bu.edu
Discussion:	W 9:00 - 10:00 am	Classroom: CAS 228
Office Hours:	F 9:00 - 11:00 am	Classroom: SSW 514

1 Overview

Course description

Do more years of schooling lead to better labor market outcomes after graduation? Is there a gender gap in wages? Does a smaller class size improve student performance? This course will introduce you to econometric tools that can be applied to analyze data and provide answers to these questions. The main goal is to estimate causal relationships.

This is the second course in the empirical economics sequence, building on EC203. In this course, you will learn how to formulate a research question, develop a hypothesis, and test it using econometric tools with available data. More detailed topics can be found in the tentative course schedule section. Stata will be used for data analysis in assignments and final projects.

Prerequisites

EC 101 Introductory Microeconomic Analysis, EC 102 Introductory Macroeconomic Analysis, and EC 203 Empirical Economics 1 or EC 303 Econ Analysis 1 or the equivalent.

Course Materials

1. Software

The statistical software Stata is **required** for this course. We will begin using Stata right away, so it is important that you obtain a copy of Stata before the first discussion session. In the first class, I will explain several options for using Stata. You can purchase a copy of Stata at: https://www.stata.com/order/new/edu/gradplans/student-pricing/. Stata BE is sufficient for the scope of this course. It is strongly recommended to watch the Stata tutorial videos during the first week of the class, as needed. You can find the tutorial videos at: https://www.bu.edu/econ/students/stata-resources/.

2. Textbooks

- **(Required)** Jeffrey M. Wooldridge, *Introductory Econometrics: A Modern Approach.* Cengage Learning, 7th Edition.
  Students can rent/obtain an eTextbook or a printed book from the Cengage website: https://www.cengage.com/c/introductory-econometrics-a-modern-approach-7e-wooldridge/9781337558860PF/ OR get a copy from Amazon or other bookstores: https://www.amazon.com/Introductory-Econometrics-Modern-Approach-MindTap/dp/1337558869
- **(Recommended)** Stock, James and Mark Watson, *Introduction to Econometrics.* Pearson.

2 Grading

The following components determine the course grade:

Midterm Exam	20%
Final Exam	30%
Research Project	30%
Problem Set	20%

I reserve the right to curve the overall grades at the end of the course. Class participation will be evaluated at the end of the semester and will help me assign grades to borderline cases. **Please note that under no circumstances will "extra credit" work be given.**

1. Exam
The midterm will tentatively cover the materials from Chapters 1 to 4. The final exam will be cumulative. Both exams will be closed-book. Any changes to an announced exam date or time will be announced in class and posted on Blackboard. It is your responsibility to be aware of these changes.

2. Makeup exams
There will be no makeup exams. You are expected to take all exams when scheduled. Excused absences will be granted in case of illness or family emergency. If you miss one exam due to a documented medical emergency on or before the exam, a signed note from a doctor, on their letterhead, indicating that you were seen on the day of the exam will be required. For family emergencies, you should contact me prior to the exam. With approval, the weight carried by the missed midterm will be added to the final exam; the weight carried by the missed final will be added to the midterm but with a penalty.

3. Research project
Students are required to complete a research project. **You may work individually or in a group of two students.** The project will require students to pose a novel research question, develop an econometric model and a hypothesis, perform their own regression analysis, and document your

findings. Detailed instructions for the research project are posted on Blackboard.

4. Problem sets

There will be two assignments throughout the course. The problem sets will consist of both a theoretical and an empirical (computational) part. You may work on them individually or in groups, but each student must submit their own individual work. There are no extensions or make-up problem sets. No late homework submissions are allowed. Solutions will be posted on the Blackboard after the due dates.

5. (Bonus points) In-class assignment

In order to encourage attendance and participation during class, I plan to introduce in-class assignments. I will randomly assign these assignments and provide you with some time to solve the questions during the lecture. Submitting the assignment is voluntary, and I will grade it based on the level of effort or completion. Each assignment will carry one bonus point towards your course grade. It's important to note that the total score for the course remains 100, which includes the midterm, final, research paper, and problem sets. These bonus points are additional and can help improve your overall score.

3 Course Schedule

The following is a *tentative* schedule for the course. **All the due dates are by 11:59 pm EST**.

Week	Dates	Topics	Discussion
1	7/5	Course introduction; Chapter 1	-
2	7/10-12	Chapter 2, Chapter 3	Introduction to Stata 1
3	7/17-19	Chapter 3, Chapter 4	Introduction to Stata 2
		7/21: PS1 Due	
4	7/24-26	PS1 Review, Chapter 6	Midterm exam review
		7/25: Midterm exam	
		7/28: Submit group and research topic	
5	7/31-8/2	Chapter 7, Chapter 8	Introduction to Stata 3
6	8/7-9	Chapter 14, Chapter 15	Research project
		8/11: PS2 Due, 8/13: Project Due	
7	8/14-15	Review session for final exam	-
		8/15: Final exam	

Administrative Dates

- Classes begin: Wednesday, July 5
- Last day to register/add/audit classes: Tuesday, July 11
- Last day to drop with a 'W' grade: Friday, July 28

Important Course Dates

- PS1 due: Friday, July 21
- Midterm: Tuesday, July 25
- Research project submit group members and topic: Friday, July 28
- PS2 due: Friday, August 11
- Empirical project due: Sunday, August 13
- Final: Tuesday, August 15

4 Course Policies and Other Information

1. Attendance
Students are expected to attend every lecture and discussion session. Attendance may be considered when assigning letter grades to borderline cases.

2. Class structure
Each lecture runs from 10:00 am to 12:30 pm with a 10-minute break in between.

3. Discussion sessions
In the discussion sessions, our TF (Teaching Fellow) will provide Stata tutorials to help you solve problem sets and write research papers. The sessions will also guide you through the process of completing the research project. Our TF will be your first contact point to discuss your research projects and Stata problem sets. If you have any questions regarding the project and homework, please attend office hours or reach out to the TF.

4. Academic Integrity
You can find Boston University's Academic Conduct Code at
http://www.bu.edu/academics/academic-conduct-code/. Please read the CAS Academic Conduct Code and adhere to its principles. Feel free to reach out to me if you have any questions or concerns. Plagiarism and academic misconduct of any kind can lead to severe consequences.

5. Students with disabilities
Students with disabilities who require accommodations must provide me with a note from the BU Office of Disabilities Services (https://www.bu.edu/disability/). Students who are approved for special accommodations should inform me as soon as possible so that appropriate arrangements can be made.

6. Emails

When sending emails, please use the subject line "EC204: [Email Issue]", where "email issue" is a brief summary of the email's content. This will help ensure that your email receives prompt attention and a response.