

University of Chicago
Kenneth C. Griffin Department of Economics

11020 - Introduction to Econometrics
Fall 2025

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Website: <http://www.juliaseither.org>

Teaching Assistant: Aleena Khan (aleenak@uchicago.edu) TA office hours:

Class Hours:

Lectures on Monday & Wednesday 3pm -- 4:20pm in TBD

Discussion Section on Tuesday 5:30pm -- 6:20pm in TBD

Office Hours:

Tuesday & Wednesday 11am -- 12:30pm in room 251

Please sign up for office hours online at <http://www.juliaseither.org/teaching/>.

1 Course Description

The goal of this course is to introduce students to the practice of econometrics. The course will focus on the use of multiple regression as a tool to establish causal relations. The course emphasizes all steps of the process of empirical research: data collection, analysis, and presentation (both written and oral). Multiple examples of this process will be discussed, and students will be expected to read and evaluate existing research. Students will apply the techniques discussed in class to a question of their choosing. They will write a short paper and present their results to me in a special session at the end of the quarter (before the reading period).

1.1 Structure

The course consists of 18 sessions; 13 conceptual and 5 applied using Stata. There are also 4 more sessions for presentations during the last week of classes. The midterm will be given in class.

2 Textbook

We will use "Piece of Cake" as our textbook. Students must read the indicated pages in advance of each lecture. There will be a brief quiz at the beginning of every class to make sure students read. Please print Piece of Cake, read it, and use it to take notes next to the text. The lectures will follow them very closely.

Complementary suggested textbooks are Stock and Watson's "Introduction to Econometrics" (which is expensive), Bueno de Mesquita and Fowler's "Thinking Clearly with Data", and the World Bank's "Impact Evaluation in Practice" (this one you can download free of charge here (<https://www.worldbank.org/en/programs/sief-trust-fund/publication/impact-evaluation-in-practice>)).

3 Assessment

- Midterm and Final Exam (20% each).
- Quizzes (20%): I will give a short quiz at the beginning of every class. Each consists of one or two multiple-choice questions with one minute to answer them. During the first part of the course, quizzes will be about the reading material scheduled for the session. During the second part, it will be about Stata commands taught the previous session. The quizzes with the two lowest scores will not count towards the grade.
- Problem Sets (20%): There will be four individual problems sets. Students are encouraged to work in teams, but each student must submit an individual solution indicating the students who are part of the team.
- Research project using experimental design (20%): Students will work in groups of five. They will do a 5-minute poster presentation of their experiment and results.

Final grade: the numerical grade (from 0 to 100) will be converted to final grades as follows:

Numerical grade	≤49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	≥95
Final grade	F	D	D+	C-	C	C+	B-	B	B+	A-	A

4 Course Policies

4.1 Lecture format

Students are expected to attend and participate during class. The lecture slides will not be available to students.

4.2 Access to Canvas

Students must have access to Canvas during the lectures (laptop or smartphone). Canvas will be used routinely to give quizzes and also for the midterm and final exams.

4.3 Learning environment

This class respects and welcomes students of all backgrounds, identities, and abilities. If there are circumstances that make our learning environment difficult, please let me know. I will not inquire about your reasons. I will ask only about your learning needs.

4.4 Conduct and administrative matters

Students must follow the University and Department policies with respect to conduct. If you have administrative questions, please ask Julie Wong (juliew@uchicago.edu).

4.5 Communications

Students must post their questions about the course substance or administration as a "Discussion" on Canvas. For personal inquiries, send me an email. I read and reply to every email you send to me with the exception of emails received within the 24 hours prior to an exam. Also, usually I don't reply to emails received outside of regular work hours. So, don't expect me to immediately reply to emails sent late in the night or on weekends.

4.6 Software

Students are expected to learn basic commands in Stata (enough to use the analytical tools that will be taught in the course). You can use Stata in your laptop through UChicago's VPN. Here is a guide explaining how to do it: Reference guide for using Stata.pdf (https://canvas.uchicago.edu/courses/44733/files/8036104/download?download_frd=1).

4.7 Laptop etiquette

Laptops are only allowed for (1) taking quizzes, (2) taking the midterm and final exams, and (3) working on Stata.

5 Schedule

Below are the topics covered in each session. Students must read the assigned lecture notes and complement them with their own notes taken in class.

Week	Session	Date	Readings	Topic
1	Mon	Sep 29	pp. 1-4	Introduction
	Wed	Oct 1	pp. 5-9	Univariate Regression
2	Mon	Oct 6	pp. 10-12	Multivariate Regression
	Wed	Oct 8	pp. 13-23	Regression specification
3	Mon	Oct 13	pp. 24-28	Sampling, estimation, and the CLT
	Wed	Oct 15	pp. 29-35	Significance
4	Mon	Oct 20	pp. 36-41	Confidence intervals
	Wed	Oct 22	pp. 42-53	Descriptive use, collinearity, and biases
5	Mon	Oct 27	pp. 54-59	Measurement error; Predictive use
	Wed	Oct 29	pp. 60-65	Prescriptive use: the Rubin model
6	Mon	Nov 3	pp. 66-73	Prescriptive use: RCT, natural experiments, RDD
	Wed	Nov 5	pp. 74-79	Prescriptive use: Diff-in-Diff
7	Mon	Nov 10		<i>Midterm Exam (30min)</i>
				Project Definition, Stata intro
8	Wed	Nov 12	Stata	Manipulating & visualizing data
	Mon	Nov 17	Stata	Natural experiment, RDD, Diff-in-Diff
	Wed	Nov 19	Stata	Regression & inference
9	Mon	Nov 24		Thanksgiving Break
	Wed	Nov 26		Thanksgiving Break
10	Mon	Dec 1	Posters	Project presentations
	Wed	Dec 3	Posters	Project presentations
11	TBD	TBD		<i>Final Exam</i>