

## ECON 2220A

### Introductory Econometrics

Winter 2023

Instructor: Jiankang Zhang  
Office: D887 Loeb Building  
613-520-2600 ext. 3774  
[jiankangzhang@cunet.carleton.ca](mailto:jiankangzhang@cunet.carleton.ca)  
TA: TBA

Classes:  
Wednesdays 11:35-12:55 (Lecture, 180 University Centre)  
Fridays 11:35-12:55 (Lecture, 180 University Centre)  
Wednesdays 13:05-14:25 (Tutorial, 180 University Centre)  
Office Hours: 16:10-17:40 (Thursdays or by appointment)

---

Welcome to Introductory Econometrics.

**Objectives:** This course is an introduction to basic econometric methods for the study of economics and builds on the material covered in ECON 2210. Topics include correlation, simple and multiple linear regression, and an introduction to statistical computing using an econometrics package. The emphasis is on understanding appropriate methods and their properties, as distinct from their formal theoretical development. Empirical applications are included.

**Prerequisites:** The prerequisites for this course are ECON 2210 (or equivalent) with a grade of C- or higher, and ECON 1402 (or equivalent) with a grade of C- or higher, as outlined in the 2022-2023 Undergraduate Calendar. Students who believe they have taken a similar background course or courses from another university should provide appropriate documentation to the Department of Economics Undergraduate Administrator, Renee Lortie: [renee.lortie@carleton.ca](mailto:renee.lortie@carleton.ca) to check that credit may be given for all courses.

**Precludes additional credit for STAT 2509, STAT 2607, ECON 2200 (no longer offered), and ECON 2202 (no longer offered).**

**Qualification requirements for higher level courses:** A grade of C+ or higher in this course is required to qualify for ECON 3900, ECON 3920, ECON 4002, and ECON 4706. DEF(erred final grade) status at the end of this course precludes (continued) registration in any other course for which the former is a prerequisite.

The course consists of lectures three hours a week, tutorials one and a half hours a week.

### Textbook

The required textbook for the course is:

*Using Econometrics* by Studenmund, A.H.  
7<sup>th</sup> edition, Pearson

## Course Outline

- Topic I: The Basic Regression Model

Chapter 1: An Overview of Regression Analysis

Chapter 2: Ordinary Least Squares

Chapter 3: Learning to Use Regression Analysis

Chapter 4: The Classical Model

Chapter 5: Hypothesis Testing and Statistical Inference

- Topic II: Violations of the Classical Assumptions

Chapter 6: Specification: Choosing the Independent

Chapter 7: Specification: Choosing a Functional Form

Chapter 8: Multicollinearity

Chapter 9: Serial Correlation

Chapter 10: Heteroskedasticity

Chapter 11: Running Your Own Regression Project

## Computer Package

The use of the STATA econometrics computer package will be an integral part of this course.

Personal copies of STATA will be available for download under Carleton's STATA site-licence. Details will be provided in due course.

STATA can also be accessed through the Carleton student computer networks.

## Grading Scheme

- The final grade will consist of the following elements weighted as shown:
 

1. Assignments	20%
2. Midterm	30%
3. Final exam	50%
- The midterm examination will be in-person and held in class after finishing topic I.
- The dates for the midterm will be announced in advance via Brightspace.
- Late assignment will be not accepted.
- There will be no deferred mid-term exam. If you miss the midterm exam due to an emergency or illness and provide proper documentation (Please give me the original copy in person!), the assigned weight will be added to the final exam. Otherwise you will receive zero marks for it.
- The final exam will be **cumulative** and cover the **entirety** of the course material.
- The final examination will be a three-hour in-person examination, scheduled by the Scheduling Office.

**Satisfactory Performance Criteria:** Students must fulfil all of the preceding course requirements in order to achieve a passing grade (D- or higher). Failure to write the final examination when the student has achieved satisfactory performance during the term will result in a grade of 'F' until an appeal to write the deferred final exam in May 2023, if granted by the Registrar's Office. A change of grade will be submitted when the deferred final exam has been written and the marks are available. See Academic Regulation 2.3 for the official meanings of the grades, and note that it stipulates that no course grades are final until approved by the Faculty Dean. Application to write a deferred final examination must be made at the Registrar's Office in writing no later than three working days after the original final examination was scheduled.

**Tutorial Groups:** Weekly tutorials will be conducted. The TA will show the students the applications of concepts and theories presented in classes step by step by using some examples.

**Practice Problems:** Students are encouraged to work through as many textbook problems as possible, since these are the best way to learn the course and prepare for the exams as well.

**Brightspace** and the Carleton email system will be used extensively as a means of communication with students. Therefore, students are strongly advised to access Brightspace and check their Carleton email at regular intervals in order to check for new information. To access Brightspace and the Carleton email system, students require a MyCarletonOne account. For questions about MyCarletonOne accounts, students should access <http://carleton.ca/ccs/get-started/> (and then click on either New Students or New Grad Students, as appropriate) or contact the ITS Service Desk (4th Floor, MacOdrum Library, telephone: 613-520-3700).

**Plagiarism:** Please be aware that plagiarism is serious offense at Carleton and should be recognized and avoided. For further information on how to do so, please see "Pammett on Plagiarism and Paraphrasing" at [www.carleton.ca/economics/courses/writing-preliminaries](http://www.carleton.ca/economics/courses/writing-preliminaries).

**Requests for Academic Accommodation:** You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

**Pregnancy obligation:** Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: [carleton.ca/equity/wpcontent/uploads/Student-Guide-to-Academic-Accommodation.pdf](http://carleton.ca/equity/wpcontent/uploads/Student-Guide-to-Academic-Accommodation.pdf)

\*\*\*\*\*

**Religious obligation:** Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: [carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf](https://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf)

**Academic Accommodations for Students with Disabilities:** If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or [pmc@carleton.ca](mailto:pmc@carleton.ca) for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. [carleton.ca/pmc](https://carleton.ca/pmc).

**If you have any problems and questions, please do not hesitate  
to ask me for help.**