Faculty of Science Course Syllabus
Department of Economics, Dalhousie
Econ 3339 Econometrics II
Winter 2025

Dalhousie University acknowledges that we are in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq People and pays respect to the Indigenous knowledges held by the Mi'kmaq People, and to the wisdom of their Elders past and present. The Mi'kmaq People signed Peace and Friendship Treaties with the Crown, and section 35 of the Constitution Act, 1982 recognizes and affirms Aboriginal and Treaty rights. We are all Treaty people. Dalhousie University also acknowledges the histories, contributions, and legacies of African Nova Scotians, who have been here for over 400 years.

Instructor: Professor Weina Zhou
Office: 6220 University Ave, C21
Email: econzhou@gmail.com (see Instructor Email Policy)
Lecture: Tuesday and Thursday 13:05-14:25, LSC C234
Prerequisites: ECON3338, with minimum grade of C
Office Hours:

- Tuesday and Thursday, 8:35-9:55 (general office hours, *not* available Feb.4–13 and Mar.20–27)
- Tuesday and Thursday, 14:25-15:00 (for Econ 3339 students only)

TA: Zihao Sheng
TA section/office hour: TBA

Course Description:
This course is an extension of Econ 3338 and covers a range of modern econometric methods that are widely used in economic research. The topics for this course include: Randomized Controlled Trials, Regression Discontinuity Design, Panel Data Analysis, Difference-in-Differences, Instrumental Variables, and more.

Learning Objectives: This course introduces data analysis methods with the following objectives:

- To understand the challenges in estimating causal effects.
- To become familiar with recent empirical methodologies for estimating causal effects.
- To develop the ability to interpret and present research papers in economics.

Recommended Textbook:
James H. Stock and Mark W. Watson, Introduction to Econometrics
Note that many course materials are written by the instructor. Attendance and note-taking are essential.

Course Assessment: Students will be evaluated based on 5 course requirements:

1. Attendance (5%): Attendance will be randomly taken during class throughout the term.

2. Assignments (5%): Two assignments. These assignments will be graded on a "Pass/Fall" basis. Tentative due date: Feb. 11 and Mar. 11.

3. In-person midterm exam (20%): Feb. 13.

4. In-person final exam (35%): Scheduled by Registrar (April 9-26).

5. Term paper (35%): Students can choose between the following two options:

   - Choose an academic paper published in a top-ranked journal, write a report summarizing the paper, gather/download the data and replicate the main results (using Stata).
   - Come up with a research topic, gather the data and conduct a research analysis.

   Detailed instructions will be provided in early February. Students must inform the instructor of their choice by late February, present their paper during the final classes of the term, and submit the final term paper by April 9.

Note: All cell phones must be turned off when class starts and remain off until class is over. Using cell phones (texting, reading e-mail, etc.) will not be tolerated. Violation of this policy will result in a 20% reduction in the Attendance grade per incident. If you want to use a laptop for note-taking, it is strongly recommended that you sit in the last row of the classroom.

Grading Scheme:

A+	A	A-	B+	B	B-	C+	C	C-	D	F
90-100	85-89	80-84	77-79	73-76	70-72	65-69	60-64	55-59	50-54	<50

Policies on Missed Materials:
If a student misses the midterm exam for any reason, its weight will be automatically transferred to the final exam. **Students must email the instructor in advance and submit the Student Declaration of Absence Form online through Brightspace under the Assessments tab.** No late submissions of assignments and term paper will be accepted.

Other General Notes:
Please note the Department of Economics Statement on Academic Integrity policies. As part of an academic community it is your responsibility to be aware of appropriate conduct. Any academic offence will be reported and acted upon immediately by Dalhousie administration.

Course Coverage (time permitting):

- Statistics review
- Correlation, causality and identification issues

- Randomized controlled trials
- Regression discontinuity design
- Panel data analysis
- Difference-in-differences
- Instrumental variables
- Decomposition method
- Time series analysis

Software:
STATA: A one-year STATA/SE Student license is available to all Dalhousie Students. Students can download Stata/SE 18 at: https://software.library.dal.ca/