

York University
Fall 2025
AP/Econ 3210 3.0
B: Use of Economic Data
– Syllabus –

Course Description

Introduces the theory and practice of empirical analysis of economic models. Develops tools to estimate economic relationships involving two or more variables and to test their significance. Relies on the use of Canadian data sets and statistical software packages to show how linear regression analysis is applied. Prerequisite: AP/ECON 2500 3.00 or equivalent. NCR: students who have successfully completed or who are currently enrolled in AP/ECON 4210 3.00. Course credit exclusions: HH/PSYC 3030 6.00, SC/MATH 3330 3.00. Note: Acceptable course substitutes are available in the Calendar.

This course is about learning how to use data to answer real economic questions. We will cover the basics of econometrics — the tools economists use to figure out whether one thing actually causes another, or whether they just happen to move together. You will learn how to run and interpret regressions, test ideas with data, and judge whether results are reliable. We'll use real datasets and the software R to practice, so you'll gain both technical skills and hands-on experience. By the end, you'll be able to read research more critically, work with real data yourself, and explain what the numbers mean in everyday language.

Course Objectives

By the end of this course, you will be able to:

1. **Ask and answer empirical economic questions** — distinguish between correlation and causation, and frame questions in a way that econometric tools can address.
2. **Apply regression analysis to real data** — estimate simple and multiple linear regression models, test hypotheses, and interpret coefficients in plain language.
3. **Use statistical software effectively** — work with data in R, generate summary statistics and visualizations, and produce reproducible analysis using R Markdown.
4. **Evaluate the reliability of empirical results** — understand the assumptions behind regression models, recognize common threats to validity (such as omitted variables, measurement error, and functional form), and apply robustness checks.
5. **Communicate empirical findings clearly** — present regression results in professional tables and figures, write concise interpretations, and explain the economic meaning of statistical results.
6. **Develop critical judgment as a consumer of research** — read empirical studies with an eye to methodology, and assess whether the evidence supports the conclusions.

Lectures and Office Hours

	Day	Time	Duration (min)	Place
Lecture:	M	8:30	~ 60-80	DB 0014
Tutorial:	M	10:30	< 60	DB 0014
Office Hours (Ben):	F	2:00	~ 60	Zoom

Lectures

Before each lecture, you are expected to do the required readings. Readings will usually be taken from the textbook, but will occasionally come from additional sources, typically via reading/video that I will create and post.

Tutorials

In the tutorials (held during the last part of class), we deal with the practical application of the concepts and methods used in class. This will involve **R** and **Rstudio**. You must have a working computer, a current installation of **R** and **Rstudio** and an internet connection.

Please bring your laptop to class so that you can fully benefit from the tutorials

Office Hours

I will be available for office hours. During these times students are encouraged to drop into a zoom session. If you cannot attend the scheduled office hours, I will be available by appointment as well.

E-mail and the course message board

Please use the **eClass message board** for course questions; I aim to reply within one business day. I do **not** answer content questions via e-mail. For personal or private matters, e-mail is appropriate; we can arrange a Zoom meeting if needed.

Course Work and Exams

The course is broken down into two parts. Each part reflects a focus of a group of lectures.

Part I: Foundations, Core Regression & Inference (≈ 6 lectures)

Part II: Extensions & Critical Evaluation (≈ 5 lectures)

Each Part contains:

1. **Quizzes** on MyLabs (3 per Part).
2. **An Assignment** in RStudio submitted on eClass (2 per Part).
3. **A Practice Exam** (optional, for **bonus**; +0 / +1.5 / +3 points added to the **Part grade**, capped at 100%).
4. **An in-class Part Exam** (registrar-scheduled for Part II).

There is no separate cumulative final. Each Part ends with its own exam (two exams total). The Part II exam is registrar-scheduled but has the same format as the Part I exam and focuses on Part II material. **Exams are not cumulative**, but the material will build as we progress through the course.

Course Work

Course work includes **quizzes, assignments, and practice exams**. These are completed outside of class and submitted either through **MyLab** or **eClass** (not by e-mail).

1. **Quizzes** (6 total: 3 in Part I, 3 in Part II)
 - Online, auto-graded in MyLabs.
 - Question formats: numeric, multiple choice, and true/false.
 - You may attempt each quiz **twice** before the deadline.
 - Deadlines:
 - Part I quizzes are due **the day before the Part I exam**.
 - Part II quizzes are due **before the end of the semester**.
 - You can complete quizzes any time before the due date.
2. **Assignments** (4 total: 2 in Part I, 2 in Part II)
 - Applied data analysis in **RStudio**, building on concepts from class.
 - Instructions and due dates are posted well in advance on eClass.
 - You will have at least **14 days** to complete each assignment.
 - Each assignment is graded from **0–20 points**.
 - It is your responsibility to allow enough time to complete the work and handle any technical issues.
3. **Practice Exams** (2 total: 1 in Part I, 1 in Part II)
 - Optional, but highly recommended — they prepare you for the real exams.
 - Format and style are similar to the actual Part exam.
 - Submissions earn **bonus points** added to your Part grade:
 - 0 points = not submitted
 - 1.5 points = submitted, but less than 50% correct/complete
 - 3 points = submitted, with 50% or more correct/complete
 - Note: Bonus points can raise your grade but cannot push it above 100%.

Course work grade

The course work grade is calculated as follows: **Quizzes = 60%, Assignments = 40%**.

Accessibility: Students requiring accommodations should contact Student Accessibility Services and the instructor as early as possible.

Exams

There will be two (2) exams throughout the semester, one for each part of the course. The first will be held in class, and the last will be scheduled by the registrar.

Exam materials: Closed-book. A one-page formula sheet will be provided. Non-programmable calculators permitted.

Deferred Standing (Deferred Exam Requests) If you need to request a deferred exam for this course, submit the Department of Economics MachForm:

- **ECON Deferred Exam Request (MachForm):** <https://www.yorku.ca/laps/econ/undergraduate-programs/academic-resources/departments-policies/deferred-standing/>
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Grading Scheme

Your final grade in each Part (Part I and Part II) is based on **Exams (60–75%)** and **Coursework (25–40%)**, with the exact formula depending on your exam performance:

$$\text{Exam} \left\{ \begin{array}{ll} \geq 75 & \text{grade} = \max(0.60 \cdot \text{Exam} + 0.40 \cdot \text{Coursework}, 75) \text{ i.e., course work cannot hurt your grade} \\ [60, 75) & \text{grade} = \max(0.65 \cdot \text{Exam} + 0.35 \cdot \text{Coursework}, 60) \text{ i.e., course work cannot hurt your grade} \\ < 60 & \text{grade} = \min(0.75 \cdot \text{Exam} + 0.25 \cdot \text{Coursework}, 70) \text{ i.e. course work can only minimally help your grade} \end{array} \right.$$

- **Coursework = Quizzes + Assignments**

- Quizzes = 60% of Coursework
- Assignments = 40% of Coursework

- **Practice Exams:** Bonus marks from practice exams are added **after** your Part grade is calculated. Bonus can raise your grade but not above 100%.

- *Example:* If your Part I grade is 77% and you earn +3 bonus points, your final Part I grade becomes 80%.

Why This System?

- **Fairness:** Exams are central — grades reflect independent mastery.
- **Support:** Honest effort on quizzes and assignments helps, especially if your exam score is in the 60–75 range.
- **Integrity:** Coursework alone cannot carry you to a top grade if exam performance is weak.

Take-away:

- If you do well on exams, coursework can only help you.
- If your exam is in the mid-range, coursework can lift you but not pull you below 60.
- If your exam is below 60, coursework provides only a small boost (capped at 70)

Table 2: Student Examples Under the Grading Scheme

Exam	Coursework	Scheme	Final_Grade	Explanation
90	80	1	86.0	Strong exam; coursework helps a little. Grade at least 75 guaranteed.
75	60	1	75.0	At threshold: coursework does not pull you below 75.
70	80	2	74.5	Mid-range exam: coursework boosts grade; floor of 60 applies.
65	50	2	62.8	Coursework does not hurt; grade stays above 60.
55	90	3	65.0	Weak exam: coursework helps a little, but capped below 70.
40	100	3	55.0	Very weak exam: coursework cannot rescue you; capped at 70.

Final Grade

Your final course grade is the weighted average of the two Part grades:

Table 3: Course Part Weights

Part	Weight
Part I	50%
Part II	50%

Schedule (Topics, Readings, Dates)

Posted on eClass and updated as needed.

Required Course Materials

Textbook and Pearson MyLab:

MyLab Economics with Pearson eText for Introduction to Econometrics: \$162.49 CAD

MyLab is required for this course. Any version of the textbook is acceptable if you prefer a hard copy instead of an eText. This subscription allows access for up to 12 months.

Technical Requirements

We use eClass (mandatory) and MyLabs (mandatory). You should have a computer with a working installation of R and RStudio (or Posit). If you do not have a laptop, you can access R and RStudio in the campus computer labs. You will need a reliable internet connection to access course materials, submit assignments, and participate in online quizzes.

Academic Integrity

Why: Upholding high standards of Academic Integrity is essential for successful academic discourse, and to the pursuit of learning and scholarship. Respecting and enforcing these standards at our university ensures that the degree you earn is a strong signal of your learning and academic achievement.

How: You uphold high standards of Academic Integrity by:

- doing and submitting only your own work
- not permitting others to use your answers
- giving credit to others for their ideas and works, including the use of generative AI
- quoting your sources, correctly paraphrasing and summarizing

More information: If you have questions or concerns about what constitutes appropriate academic behaviour, please consult with me or seek additional resources.

Enforcement: York University takes its responsibility to uphold high academic standards very seriously. The Senate Policy on Academic Conduct outlines behaviours that constitute academic dishonesty and processes for addressing academic offences. Sanctions in cases of cheating can include temporary and permanent records on your transcript, suspension from the course, or suspension from the University.

It is not up to the instructor: If I observe behaviour that might involve academic dishonesty, I am required to report it. It is not up to me to judge whether the behavior was unintended, a minor infraction, a first-time infraction, etc. I am professionally bound to report any suspicious behavior.

Important dates

Please find add/drop/withdrawal dates [here](#).