liberal arts &
professional studies | YORK U

# Use of Economic Data

AP/ECON 3210 M
S2 2025

**COURSE INFORMATION**
Course Instructor: David K. Lee, Ph. D.          Phone:
E-mail: dklee@yorku.ca

Course Time & Days: M/W 11:30am 2:20pm
Class Location: DB 0010
Course eClass site:

Instructor Office Hours and Communication Guidelines
Office Location: VH 1129
Office Hours: By appointment (In-person or zoom meeting, zoom connection information will be available through eclass)

**Tutorials, Labs and TA Contact Information**
TBA

# Land Acknowledgment

York University recognizes that many Indigenous Nations have longstanding relationships with the territories upon which York University campuses are located that precede the establishment of York University. York University acknowledges its presence on the traditional territory of many Indigenous Nations. The area known as Tkaronto has been care taken by the Anishinabek Nation, the Haudenosaunee Confederacy, and the Huron-Wendat. It is now home to many First Nation, Inuit, and Métis communities. We acknowledge the current treaty holders, the Mississaugas of the Credit First Nation. This territory is subject of the Dish with One Spoon Wampum Belt Covenant, an agreement to peaceably share and care for the Great Lakes region (LA&PS Land Acknowledgement).

# Course Overview

## 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. Note: No credit will be retained for this course for 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. PRIOR TO FALL 2009: Course credit exclusions: SC/BIOL 2060 3.00, AK/AS/ECON 3210 3.00, AK/AS/SC/MATH 3033 3.00, AS/SC/MATH 3330 3.00.

## Course Learning Objectives

This course focuses the theory and practice of econometric analysis of economic models. The basic probability and statistics will be reviewed in the beginning of the course.  Linear regression analysis, both simple and multiple regressions including various functional forms of regression model such as binary dependent variable, then will be examined.  The topics for the cases in which the assumptions of the classical linear regression model are relaxed such as multicollinearity, and heteroskedasticity will be examined.  Throughout the course, statistical software packages will be used to show how the theory is applied.

## Course Organization

This course involves formal lectures presented by the course instructor.  The classroom technology will be used extensively, such as PowerPoint, or MS word format presentation. There will be extensive usages of the course web site.  Reading assignments, practice problems, problem solving, etc., for each lecture session, tutorial sessions or TA availability, etc., will be announced on the course web site.

## Required Course Materials

Wooldridge, Jeffery M., _Introductory Econometrics: A Modern Approach_, 8th Edition. Cengage Learning. 2024. ISBN-13: 978-0-357-90016-1, **Cengage Learning Inc.**

**Cost and availability:** This textbook is available at York bookstore (https://www.bookstore.yorku.ca ).

Day1Digital Ebook Introductory Econometrics 8th
SKU: Day1Digital Ebook Introductory Econometrics 8th-9780357900260, $76.00

Introductory Econometrics 8th
SKU: Introductory Econometrics 8th-9780357900161-New, $193.95.

Older versions can be used but may not have the most up-to-date examples or information.

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## Technical Requirements

This course is, in principle, a face-to-face lecture in a classroom. However, online lecture deliveries can be delivered, and some student consultations are expected to take place online. The technical features, a computer with microphone and webcam, and a high speed and reliable internet connection, and/or a smart device with these features, are required for students to fully participate in the course. There are some live information sessions including Q & A that may be conducted through Zoom video conferencing, where students are expected to participate. If you are not comfortable with these requirements, you should not enroll in this section of the course.

Several platforms will be used in this course (e.g., eClass, Zoom, etc.) where students will interact with the course materials, the course director/TA, as well as with each other.

Here are some useful links for computing information, resources, and help:
- Student Guide to eClass
- Zoom@YorkU Best Practices
- Zoom@YorkU User Reference Guide
- eLearning Getting Started (LA&PS eServices)
- Student Guide to Remote and Online Learning

To determine Internet connection and speed, there are online tests, such as Speedtest, that can be run. If you need technical assistance, please consult the University Information Technology (UIT) Student Services web page or write to askit@yorku.ca.

## Course Evaluations

The grade for this course is composed of the mark received for each of the following components

| Type of Assessment | Percent/Weight | | Date |
|---|---|---|---|
| | **A** | **B** | |
| Assignment | 15% | | TBA |
| Midterm Exam I (120 min) | Higher 25% | Higher Mark | M July 7 |
| Midterm Exam II (120 min) | Lower 10% | 20% | W July 23 |
| Final Exam (180 min) | 50% | 65% | Aug 7-14 |
| **TOTAL** | **100%** | | |
| | **Plus Bonus** | | |
| **Course Grade = Max {A, B}** | | | |

**Please note that** I strongly believe that the best learning experiences occur when there is healthy attendance and discussions in the classroom. Therefore, I have a policy to give some bonus points based on **class attendance and participation (usually no more than 5%)** to

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encourage attendance and classroom discussion.  Feel free to ask any questions or simply make comments on relevant topics at any time.

**Problem sets** will be posted on the course web site throughout the semester.  Some of them may be solved in class.  These problems will not be graded; however, I encourage you to work through them.  It will help you understand the course material and consequently, increase the probability that you will do well in the course.  Practice may not always make perfect, but it's a good start.

**Assignments:**
One of the purposes of this course is to learn real econometric applications for students. Students are required to complete research projects of an econometric model application with statistical software such as SAS, SPSS, STATA, or R.   SAS and SPSS are ones of the most powerful statistical languages.  SAS is a widely used software for virtually every field. STATA is statistical software, in general, specialized in economics and/or econometrics. STATA is useful software for students who plan to study further in economics (masters or Ph. D level).  R is a relatively newly introduced but very popular and powerful programming language for data analysis. Students will have to complete a project during the semester using at least one of the programs listed above.

If a student has access to other programming languages such as GAUSS, SHAZAM, and TSP, and wants to apply for one of these, he/she should consult with the instructor.

If a student wishes to use software on your personal computer for free through York, please go to https://myapps.yorku.ca/ and log in with your passport York ID. You will be asked to download an app.  Please do so and follow all the instructions.

After the app is installed on your computer, scroll down the list of applications on the MyApps website and find R, SAS, or SPSS.  Hovering your mouse over it and clicking "virtual" should launch those on your desktop.

**R and RStudio**
As explained above, students can use any software, but R is the recommended program for this course. R (https://www.r-project.org) is a free, open-source programming language for statistical computing.  RStudio (https://rstudio.com) is a free, open-source R programming environment. It contains a built-in code editor, many features to make working with R easier, and works the same way across different operating systems.
**You will need regular, reliable access to a computer running an updated version of the software.**

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# Missed Tests and Exams

**No Makeup Midterms Offered**
There are no makeups for missed midterm exams.
Students must complete at least one of the two midterm exams to avoid being penalized on the final course evaluation.

**Requesting Deferred Final Exam**
Students will be required to complete a Mach form requesting a deferred exam. For complete instructions for using the Mach form, please go to our website:
https://www.yorku.ca/laps/econ/undergraduate-programs/academic-resources/department-policies/deferred-standing/
A student must submit the form within 5 business days from the final exam date.

## Grading

The grading scheme for this course conforms to the 9-point system used in undergraduate programs at York University. For a full description of the York grading system, visit the York University Academic Calendar.

| Grade | Grade Point | Percent Range | Description |
|-------|-------------|---------------|-------------|
| A+ | 9 | 90-100 | Exceptional |
| A | 8 | 80-89 | Excellent |
| B+ | 7 | 75-79 | Very Good |
| B | 6 | 70-74 | Good |
| C+ | 5 | 65-69 | Competent |
| C | 4 | 60-64 | Fairly Competent |
| D+ | 3 | 55-59 | Passing |
| D | 2 | 50-54 | Marginally Passing |
| E | 1 | (marginally below 50%) | Marginally Failing |
| F | 0 | (below 50%) | Failing |

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# Course Schedule

## Important Dates
Explore the York University [Academic Calendar](#) to find a list of important dates, such as class start/end dates, drop deadlines, holidays and more.

## Weekly Course Schedule

| Session | Topic | Reading and Activity |
|---|---|---|
| **01 M** Jun 23 | Introduction: Nature of Econometrics | Ch 1 |
| **02 W** Jun 25 | Review of Basic Statistics | Appendices:  A and B |
| **03 M** Jun 30 | The Simple Regression Model | Ch 2 |
| **04 W** Jul 2 | | |
| **05 M** Jul 7 | **Midterm Exam I (Sessions 1 to 4 covered)** **(Note: Drop Deadline: July 21)** | |
| **06 W** Jul 9 | The Estimation of Multiple Regression Model | Ch 3 |
| **07 M** Jul 14 | | |
| **08 W** Jul 16 | The Inference of Multiple Regression Model | Ch 4 |
| **09 M** Jul 21 | Multiple Regression: Further Issues | Ch 6 |
| **10 W** Jul 23 | **Midterm Exam II (Sessions 6 to 8 covered)** | |
| **11 M** Jul 28 | Dummy Variables | Ch 7 |
| **12 W** Jul 30 | LPM, Logit, and Probit Models | Notes |
| **Final Exam** | **August 7 - 14** | |

**New Information and Changes:**
The schedule is subject to change –sometimes there are unexpected absences, or we bog down on an issue.  Check your class notes, or contact me for up-dated work schedules.

It may be very possible to make some adjustments to lectures and/or exams schedules. Students may also have handouts for the topics discussed in the class.  It is students' responsibility to be aware of any policy (or schedule change), or to collect handouts from classes.  If you miss classes, contact the instructor before or immediate after, and check if there is any policy change or handout distributed.

**There is no excuse for not knowing course policies or schedule changes, or for not having handouts.**

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# Course Policies

Please review the course policies in this section. All students are expected to familiarize themselves with the following information:
- Student Rights & Responsibilities
- Academic Accommodation for Students with Disabilities

## Academic Integrity

Academic integrity is a fundamental and important value of York University. To maintain a fair and honest learning environment, you are responsible for understanding and upholding academic integrity in all courses and academic activities. You are encouraged to connect with reliable on-campus resources that support your coursework and academic honesty. To better understand the serious consequences of breaching academic honesty policies, familiarize yourself with the *Senate Policy on Academic Conduct*. You can learn more about upholding academic integrity in your courses by exploring Guiding Principles for LA&PS and Academic Integrity for Students.

## Generative Artificial Intelligence (GenAI)

Students are not permitted to use generative artificial intelligence (AI) in this course. Submitting any work created (in whole or part) through the use of generative AI tools will be considered a violation of York University's *Senate Policy on Academic Conduct*. Using AI apps such as ChatGPT, GPT-3, DALL-E, translation software among others to complete academic work **without your instructor's knowledge or permission**, is considered to be a breach of academic honesty. For more information, please review AI Technology & Academic Integrity: Information for Students.

If you're not sure whether using an AI app for your academic work is acceptable, it is recommended that you:
- Carefully review the guidelines for your assessments
- Check for any messages from your instructor on eClass
- Ask your instructor or TA if they are permitting the use of these tools

## Turnitin

To promote academic integrity in this course, students will normally be required to submit their written assignments to Turnitin (via the course's eClass site) for a review of textual similarities and the detection of possible plagiarism. In so doing, students will allow their material to be included as source documents in the Turnitin.com reference database, where they will be used only for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin service are described on the Turnitin.com website. York

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students may opt out of using Turnitin. If you wish to opt out, you should contact your instructor as soon as possible.

## Accessibility

York University is committed to creating a learning environment which provides equal opportunity to all members of its community. If you anticipate or experience any barriers to learning in this course, please discuss your concerns with your instructor as early as possible. For students with disabilities, contact Student Accessibility Services to coordinate academic accommodations and services. Accommodations will be communicated to Course Directors through a Letter of Accommodation (LOA). Accommodations for tests/exams normally require three (3) weeks (or 21 days) before the scheduled test/exam to arrange.

## Religious Observance Accommodation

York University is committed to respecting the religious beliefs and practices of all members of the community and making reasonable and appropriate accommodations to adherents for observances of special significance. Should any of the dates specified in this syllabus for course examinations, tests, or deadlines conflict with a date of religious significance, please contact the instructor within the first three (3) weeks of class. If the date falls within the formal examination periods, you must complete and submit a Religious Accommodation for Examination Form at least three (3) weeks before the start of the exam period.

## Intellectual Property

Course materials are designed for use as part of this particular course at York University and are the intellectual property of the instructor unless otherwise stated. Third-party copyrighted materials (such as book chapters, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian copyright law. Students may not publish, post on an Internet site, sell, or otherwise distribute any course materials or work without the instructor's express permission. Course materials should only be used by students enrolled in this course.

Copying this material for distribution (e.g., uploading material to a commercial third-party website) may lead to a charge of misconduct according to York's *Code of Student Rights and Responsibilities*, the *Senate Policy on Academic Conduct*, and/or legal consequences for copyright violations.

## Student Support and Resources

York University offers a wide range of student supports resources and services, including everything from writing workshops and peer mentorship to wellness support and career guidance. Explore the links below to access these on-campus resources:

- Academic Advising is available to provide students support and guidance in making academic decisions and goals.

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- Student Accessibility Services are available for support and accessibility accommodation when required.
- Student Counselling, Health & Wellbeing offers workshops, resources, and counselling to support your academic success.
- Peer-Assisted Study Sessions (PASS) Program provides student study sessions for students to collaborate and enhance their understanding of course content in certain courses.
- Student Numeracy Assistance Centre at Keele (SNACK) supports students in courses involving math, stats, and Excel.
- The Writing Centre provides multiple avenues of writing-based support including drop-in sessions, one-to-one appointments, a Multilingual Studio, and an Accessibility Specialist.
- Centre for Indigenous Student Services offers a community space with academic, spiritual, cultural, and physical support, including writing and learning skills programs.
- ESL Open Learning Centre (OLC) supports students with building proficiency in reading, writing, and speaking English.
- Learning Skills Services provides tips for time management, effective study and learning habits, keeping up with coursework, and other learning-related supports.
- Learning Commons provides links to supports for time management, writing, study skills, preparing for exams, and other learning-related resources.
- Roadmap to Student Success provides students with timely and targeted resources to help them achieve academic, personal, and professional success.
- Office of Student Community Relations (OSCR) is responsible for administering the *Code of Student Rights & Responsibilities* and provides critical incident support.
- Peer Mentorship helps students transition through their first year by connecting them with upper-year students. The mentors can help find supports and resources. They also lead a community hub on campus.
- goSAFE is staffed by York students and can accompany York community members to and from any on-campus location, such as the Village Shuttle pick-up hub, parking lots, bus stops, or residences.

For a full list of academic, wellness, and campus resources visit Student Support & Resources.

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