

Econometrics II
ECONOMICS EC2123B-002/003
Department of Economics
Western University

January 2025

Instructor: Rory McGee
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Office hours: *M: 10:15AM -11:15AM, W:10:15AM -11:15AM*
In-Person: Students should use the OWL sign-up form to indicate attendance

Delivery mode: In-person

Meeting time(s): *M 2:30PM - 4:30PM, W 2:30PM-3:30PM (002)*
M: 11:30AM - 12:30PM W: 11:30AM -1:30PM (003)

Classroom: *AHB-1B04 (002)*
AHB-1B08 (003)

Course website: <https://westernu.brightspace.com/>

Undergraduate inquiries: 519-661-3507 or SSC Room 4075 or econugrd@uwo.ca

Registration:

You are responsible for ensuring you are registered in the correct courses. If you are not registered in this course, the Department will not release any of your marks until your registration is corrected. You may check your timetable by using the Login on the Student Services website at <https://student.uwo.ca>. If you notice a problem, please contact your home Faculty Academic Counsellor immediately.

Prerequisite/Antirequisite Note:

The prerequisites for this course are **Economics 2122A/B or Statistical Sciences 2035** with a mark of 70; and 0.5 course from: **Mathematics 1225A/B, Calculus 1000A/B, Calculus 1500A/B**. The antirequisite for this course is **Economics 2223A/B**

You are responsible for ensuring that you have successfully completed all course prerequisites, and that you have not taken any anti-requisite courses. Lack of prerequisites may not be used as a basis for appeal. If you are found to be ineligible for a course, you may be removed from it at any time and you will receive no adjustment to your fees. This decision cannot be appealed.

If you find that you do not have the course prerequisites, it is in your best interest to drop the course well before the end of the add/drop period. Your prompt attention to this matter will not only help protect your academic record, but will ensure that spaces become available for students who require the course in question for graduation.

Course Description:

From the Academic Calendar:

An introductory course in regression analysis which covers: multivariate probability distributions; the classical linear regression model; heteroskedasticity; autocorrelation; introduction to time series; dynamic linear models; diagnostic testing; instrumental variables; nonlinearities and limited dependent variables.

Course Objectives:

This course introduces the linear regression model as a means to estimate and assess economic relationships. We study the interpretation of the ordinary least squares estimator as well as its asymptotic distribution. We will pay particular attention to linking the underlying economic model and the data. Building on concepts in EC2122, you will learn how to construct confidence intervals and conduct hypothesis tests for parameters in the linear regression model. You will also learn basic time series econometrics and gain practical skills for economic data analysis.

Course Learning Outcomes:

Upon successful completion of this course, you will be able to:

- Understand fundamental concepts in econometrics and interpret regression results
- Understand the meaning of regression coefficients
- Analyze the properties of the linear regression model
- Use regression models to analyze economic relationships
- Perform valid statistical inference in the linear regression framework (hypothesis testing, confidence interval etc.)
- Perform econometric analysis on datasets and discuss your findings

The goal of this course is to equip you with the necessary mathematical framework to apply your skills in the workplace, further study, or even your own hobbies!

Textbook(s) and Course Materials:

Textbook and Other Learning Materials

Required textbook

[Wooldridge, Jeffrey, Introductory Econometrics: A Modern Approach, 7th edition, SouthWestern.](#)

Students are welcome to purchase second-hand or earlier editions of this textbook.

Note: The 5th or 6th editions of the textbook may be cheaper and are very similar to the 7th edition. The main difference will be that the problems and readings I will assign will be numbered using the 7th edition. For the purposes of this course, there is no difference between the print option and the eTextbook.

“MindTap” will not be required for this course, although students are free to use this at their own discretion.

Assessments and Grading:

Mid Term [20%]:

The mid-term will take place in class on the 24th of February (section 002) or the 26th of February (section 003). This is the 2-hour class on the week immediately following reading week.

- Questions may be randomized from a question bank
- The mid-term will cover the entirety of the course before reading week
- The mid-term will be mixed format (a combination of multiple choice, true/false, fill-in-the-blank, and/or short answer questions)
- The mid-term will be closed book
- During exams, students are forbidden to communicate with any person other than an examination proctor or the instructor

Please note that this assessment is considered to be central to the learning objectives for this course. Accordingly, students seeking academic consideration for this assessment will be required to provide formal supporting documentation. Students who are granted academic consideration for this assessment will be provided with the following opportunity to make up this work:

In this circumstance, the mid-term weight will be added to the weight on your final exam.

Assignment [25%]:

This will be a structured assignment answering multiple long answer questions. You will be required to conduct econometric analysis. This assignment will give you practical experience in applying the tools taught in the course and hands-on experience analyzing economic data.

You will be required to apply the tools you have learned to a dataset used to study topics in economics (provided by the instructor). It will require you to choose between different models for estimation, estimate simple models on the data provided and test hypotheses. In response to structured questions, you will be required to write up a few paragraphs about why you made these choices, your results and what you have learnt from the data. This assignment is designed to simulate the exercise of report writing and data analysis as practiced by professional economists, quantitative analysts and data scientists.

Students will be permitted to work in groups of up to 5 students to complete the assignment. Only one student per group will need to submit the assignment. Students will be provided with details on how to declare their groups to the instructor through OWL. Group work aids long-term retention in addition to acquiring communication skills necessary for the professional world after graduation.

The deadline to declare their groups to the instructor will be February 14th at 6:00PM. Groups must be agreed on by all members of the group. The instructor will also facilitate random group assignments for students who wish to be matched. The instructor reserves the right to consider these groups as final.

Instructor's suggestion: consider forming a study group for the course early in the term. That way you will have experience of working together, recognizing each other's contributions, dealing with logistical issues, and succeeding as team!

While students are permitted to complete the assignment in groups of up to 5, this is not a requirement. All assignments will be graded using the same criteria, even if the group is smaller than 5 (including students who choose to work individually).

We will devote class time to discussing the assignments after they have been submitted and graded.

Submissions are due by **Friday March 21st at 6:00PM**. A **grace period** with zero late penalty will apply until Sunday March 23rd by 6:00PM. Late assignments received after the grace period will receive a 0 score on the assignment.

Please note that because the submission deadline for this assessment already includes flexibility in the form of a 48-hour grace period, the instructor reserves the right to deny academic consideration for assignments which are submitted following the end of the period of flexibility.

Final [1x55%]:

- Questions may be randomized from a question bank
- The final will be mixed format (a combination of multiple choice, true/false, fill-in-the-blank, and/or short answer questions)
- The final will be closed book
- During exams, students are forbidden to communicate with any person other than an examination proctor or the instructor
- Date and time to be scheduled by the Registrar
- The final exam will include all the material in the entire course

Professionalism, Privacy, and Copyright:

- Students are expected to follow the [Student Code of Conduct](#).
- All lectures and course materials, including slides, presentations, outlines, and similar materials, are protected by **copyright**. Students may take notes and make copies of course materials for their own educational purposes only.
- Students may not record lectures, reproduce (or allow others to reproduce), post or distribute lecture notes, assessments, or any other course materials publicly and/or for commercial purposes without written consent of the instructor.

- Recordings (audio or video) are not permitted without explicit, written permission of the instructor. Permitted recordings may not be distributed or shared.
- Students are expected to follow online etiquette expectations provided on OWL
- Students will be expected to take an academic integrity pledge before some assessments

Communication:

Announcements and assignments are posted to OWL. Please check the website regularly.

Announcements may be made during lectures. In this instance, any information will also be posted on OWL within 5 working days.

Email:

For any email contact with the professor via email (rmcgee4@uwo.ca) students **must use their Western email account** (@uwo.ca). Emails from students using another domain (e.g. @gmail or @outlook) will be ignored. Please ensure that your email has subject line starting with “EC 2123,” this will minimize the risk of your email being overlooked or perceived as spam.

Tips on How to be Successful in this Class:

To be successful in this class, you will need autonomy and self-discipline. Here are some tips:

- Make it a daily habit to log in to OWL to ensure you have seen everything posted to help you succeed in this class.
- Follow weekly checklists created on OWL or create your own to help you stay on track.
- Take notes as you go through the lesson material. Keeping handwritten notes or notes in a regular Word document will help you learn more effectively than just reading or attending lectures.
- Connect with others. Try forming a study group and meet on a weekly basis for study and peer support.
- Do not be afraid to ask questions.
- Show up to both lectures each week.
- If you miss a lecture because of illness, family emergencies, mental health challenges or any other reason, you are encouraged to:
 - Ask a classmate to share their notes
 - Read through the lecture slides posted on the portal
 - Read the textbook chapter covering that material
 - Attend office hours to ask specific questions about what you missed
- Take notes on paper during class.
- Complete the problem sets.
- Read the textbook chapters.
 - Take notes on paper as you read.
- Attend office hours.
 - Ask all your questions, even the ones you think are embarrassing (they are not!)
- When you are working, turn off your phone (not just to vibrate mode).

- Close all other tabs and programs when you are working on a computer.
- Make a set of synthesized notes.
 - Take the notes you made while watching the lectures and while reading the textbook and then write a new set of notes that combines all the important information from both.

PLEASE NOTE
DEPARTMENT & UNIVERSITY POLICIES FOR WINTER 2025

The University expects all students to take responsibility for their own Academic Programs. Students should also check their registration to ensure they are enrolled in the correct courses.

1. **Guidelines, policies, and your academic rights and responsibilities** are posted online in the current Western Academic Calendar at: <http://westerncalendar.uwo.ca>. Claiming that “you didn’t know what to do” is not an acceptable excuse for not following the stated policies and procedures.
2. A [*new academic consideration and flexibility in assessment*](#) policy is in effect starting September 2024. Students can miss one assessment per course per term without medical documentation. Faculty can designate one assessment per course for which students **cannot** self-attest.
3. Students must familiarize themselves with the “**Rules of Conduct for Examinations**” http://www.uwo.ca/univsec/pdf/academic_policies/exam/administration.pdf.
4. **Cheating as an academic offence:** Students are responsible for understanding what it means to “cheat.” The Department of Economics treats cheating incidents very seriously and will investigate any suspect behavior. Students found guilty will incur penalties that could include a failing grade or being barred from future registration in other Economics courses or programs. The University may impose further penalties such as suspension or expulsion.
5. **Plagiarism:** Students must write their essays and assignments in their own words. When taking an idea/passage from another author, it must be acknowledged with quotation marks where appropriate and referenced with footnotes or citations. Plagiarism is an academic offence (see Scholastic Discipline for Undergraduate Students in the Western Calendar at http://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_20).

Western University uses software to check for plagiarism and students may be required to electronically submit their work. Those found guilty will be penalized as noted in point 4.

6. It is a Department of Economics policy that **NO** assignments be dated, stamped or accepted by staff. Students must submit assignments to the instructor.
7. **Appeals:** University policies and procedures for appealing a mark can be found in the Student Academic Appeals section in the current Western Academic Calendar at: http://westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=1&SelectedCalendar=Live&ArchiveID=#Page_14. **Please note the relevant deadlines.**

Department of Economics procedures for appealing a mark can be found here: https://economics.uwo.ca/undergraduate/program_counselling/responsibilities_policies.html#appeals. The Department will not consider an appeal unless an attempt has been made to settle

the matter with the instructor first. Students who remain dissatisfied with the outcome may proceed to submit an appeal to econugrd@uwo.ca. Please follow the instructions and use the appeal form shown in the above link.

8. **Systematic adjustments of a class grade distribution** (either up or down) can occur in Economics courses. The fact that grades have been adjusted is **not** grounds for an appeal.
9. **ADD AND DROP DEADLINES:**

- Deadline to **ADD** second term full or half course: **January 14, 2025**
- Deadline to **DROP** second term full or half course: **March 31, 2025**

Policy Regarding Makeup Tests and Final Examinations

Faculty of Social Science policy states that oversleeping or misreading an exam schedule is NOT grounds for a makeup. This rule applies to midterm and final exams in the Department of Economics.

Policies Regarding Academic Accommodation

- Academic accommodation will not be granted automatically on request. Students must demonstrate by documentation that there are compelling medical or compassionate grounds before academic accommodation will be considered. The Faculty of Social Science's policies on academic accommodation are found at https://counselling.ssc.uwo.ca/procedures/academic_consideration.html
- **Accommodation for Students with Disabilities:** Students with disabilities or accessibility challenges should work with Accessible Education (formerly SSD, see http://academicsupport.uwo.ca/accessible_education/index.html), which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The accommodation policy can be found here: [Academic Accommodation for Students with Disabilities](#).
- **Rewriting Exams and Retroactive Reweighting are NOT Permitted:** Students who proceed to write a test or examination must be prepared to accept the mark. Rewriting tests or examinations, or retroactive reweighting of marks, is **not** permitted. Students must also book travel arrangements AFTER final exam dates have been posted as they must not conflict with test or final exams.
- Unless medically incapable of doing so, students must notify their instructor prior to the test date or at least within **48 hours** when requesting a makeup exam. Failure to follow this procedure may result in denial of academic accommodation and a grade of zero. Students should also set up an appointment as soon as possible to meet with their instructor. If the instructor is not available, send an email message to the instructor, copying the Undergraduate Coordinator at econugrd@uwo.ca. **Notifying instructors of a missed exam does not automatically entitle students to a makeup.**

- For medical illnesses, students may consult Student Health Services and request a Student Medical Certificate from the physician. If assessed by an off-campus doctor, students must obtain a certificate from his/her office at the time of the visit/assessment. Student Medical Certificate (SMC) is available here:
https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medical_certificate.pdf
- **Documentation for Accommodation:** Individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds or for other reasons.
- **Western University policy on Consideration for Student Absence** is available here:
https://counselling.ssc.uwo.ca/procedures/academic_consideration.html
- **Religious Accommodation:** Students should consult the University's list of recognized religious holidays and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the 2024 Diversity Calendar available at <https://www.edi.uwo.ca/> (see bottom right of page).

Policy Regarding Class Attendance and Engagement: If the instructor deems a student's attendance or engagement in the class to be unsatisfactory, that student may be prohibited from writing the final examination. Examples of unsatisfactory class engagement include frequent absences from an in-person or synchronous online class, lack of assignment submissions, and inadequate use of online course materials. Instructors who intend to make use of this policy will notify the student in advance.

Statement on Gender-Based and Sexual Violence: Western is committed to reducing incidents of gender-based and sexual violence (GBSV) and providing compassionate support to anyone who is going through or has gone through these traumatic events. If you are experiencing or have experienced GBSV (either recently or in the past), you will find information about support services for survivors, including emergency contacts at the following website: [Get Help](#). To connect with a case manager or set up an appointment, please contact support@uwo.ca.

Statement on Mental Health and Support Services: Students who are in emotional/mental distress should refer to Mental Health@Western <http://www.uwo.ca/uwocom/mentalhealth/> for a complete list of options about how to obtain help.

Statement on Remote Proctoring: While Western intends to hold most classes, mid-terms and finals in-person, the London-Middlesex Health unity may require western to teach in a remote format. If this occurs, all assessments will be done remotely and may involve the use of remote proctoring software (i.e., Proctorio, ProctorTrack). Instructors will provide information on the details should the need arise.