

ECONOMETRICS I
ECONOMICS EC2122A-003
Department of Economics
Western University

September 2024

Instructor: Hossein Ghaderi
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Office hours: 3:00 to 5:00 Friday

Delivery mode: In-person

Meeting time(s): 9:30 to 11:30 Monday, and 9:30 to 10:30 Wednesday

Classroom: AHB-1B08 4699

Course website: <https://owl.uwo.ca/portal>

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 **prerequisite(s)** for this course are Economics 1021A/B and Economics 1022A/B; and one of MCV4U, Mathematics 0110A/B, Calculus 1000A/B, Calculus 1500A/B, Mathematics 1225A/B, or Mathematics 1230A/B.

The **antirequisite(s)** for this course are Biology 2244A/B, Economics 2222A/B, Geography 2210A/B, Health Sciences 3801A/B, MOS 2242A/B, Psychology 2811A/B, the former Psychology 2810, the former Psychology 2820E, Psychology 2830A/B, Psychology 2850A/B, Psychology 2851A/B, Social Work 2207A/B, Sociology 2205A/B, Statistical Sciences 2035, Statistical Sciences 2141A/B, Statistical Sciences 2143A/B, Statistical Sciences 2244A/B, Statistical Sciences 2858A/B. Note: Students wishing to enroll in higher-level courses in the Department of Statistics and Actuarial Sciences are encouraged to consult that department.

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:

Econometrics I introduce essential concepts and techniques in econometrics, emphasizing statistical methods and their applications in economics. The course delves into crucial topics such as descriptive statistics, probability distributions, sampling, estimation, confidence interval and hypothesis testing. The primary goal is to empower students with the necessary tools to analyze data, formulate statistical models, and interpret the outcomes for effective economic decision-making.

Course Objectives:

Econometrics I (EC2122A) aim to give students an introductory understanding of statistical and econometric techniques utilized in the examination of economic data. By the conclusion of the course, students will possess the necessary tools to gather, analyze, and interpret data to inform economic decision-making. The course focuses on both theoretical comprehension and practical application.

Course Learning Outcomes:

After successful completion of EC2122A, students will be able to:

1. Use descriptive statistics and probability theory to analyze and comprehend data trends in economic situations.
2. Calculate and interpret probabilities.
3. Undertake point and interval estimation, as well as carry out hypothesis tests for various economic data scenarios.
4. Develop and estimate simple linear regression model to investigate connections between economic variables, while simultaneously critically evaluating the limitations of statistical models and interpreting the outcomes within the broader economic context.

Textbook(s) and Course Materials:

- Newbold, Carlson and Thorne, *Statistics for Business and Economics* (8th Edition) Prentice Hall (2013). ISBN 9780321931085.

Assessments and Grading:

There will be **two** midterm exams each worth **20%** of the final grade, for a total of **40%**. The first midterm will be on **October 07, 2024**, and the second midterm will be on **November 18, 2024**. The final exam, worth **50%** of the final grade, will be cumulative and scheduled by the registrar. Only non-programmable, non-graphing calculators will be allowed during exams, and the use of cell phones will be considered as cheating. Also, there are **10** assignments, and to encourage collaborative learning, you are allowed to work on these assignments in a group. However, individual submission is mandatory for every student. These assignments are worth **10%** of your mark. No assignments are going to be accepted after the due date.

I will provide a PDF file that introduces the application of R programming for introductory econometrics. Although it is not mandatory to use R for this course, as all materials can be

completed using Excel, I highly recommend that you explore R. By doing so, you will gain a valuable head start for Econometrics II next semester and more advanced econometrics courses. Learning R now will equip you with the skills necessary for more complex analyses in the future and enhance your ability to work with larger datasets and more intricate econometric models.

Policies regarding missed assessments:

- Midterm exams: Following Western's new academic accommodation policy, students can only self-attest for one assessment. However, as the **second midterm** is central to the learning objectives for this course, students seeking academic consideration for this assessment will be required to provide formal supporting documentation. **There will be no makeup exams for midterms. Any student that either self-attests for midterm 1 or has valid accommodation for midterm 2 will have the weight of the midterm shifted to the final exam.** The instructor reserves the right to provide students in each case with a longer version of the final exam to measure the student's knowledge of the topics in the midterm that was not taken.
- Final exam: **Students cannot self-attest for the final exam.** Any accommodation needed should be requested through Academic Counselling following the *policies regarding academic accommodation*. If approved, a makeup exam will be scheduled by the Department of Economics and will take place **AFTER** the original Final exam date.
- Assignments: Students may use self-attestation for one of the ten assignments.

Tentative Course Schedule and Topics Covered:

Week	Date	Chapter	Subject
W1	Sep 9	1&2	Describing data and measuring central tendency and variability.
W2	Sep 16	3	Probability.
W3	Sep 23	4	Discrete probability distributions such as Binomial and Poisson distribution.
W4	Sep 30	5	Continuous probability distributions such as Normal and Exponential distribution.
W5	Oct 7	Midterm, 6	First midterm exam from chapter 1-5, Sampling distributions.
Reading Week	Oct 14		
W6	Oct 21	6,7	sampling distributions, Estimation: single population.
W7	Oct 28	7,8	Estimation: single population, Estimation: additional topics.
W8	Nov 4	8,9	Estimation: additional topics, Hypothesis testing: single population.
W9	Nov 11	9	Hypothesis testing: single population, and review on chapters 6-9
W10	Nov 18	Midterm, 10	Second midterm exam from chapter 6-9, and Hypothesis testing: additional topics
W11	Nov 25	10	Hypothesis testing: additional topics
W12	Dec 2	11	Simple regression

This tentative course schedule is subject to changes. Any changes to this schedule will be provided in class and posted in OWL accordingly. Importantly, some chapters might not be covered entirely; please see OWL for details on the material covered for each chapter.

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 (if applicable; otherwise delete this bullet point)
- Students will be expected to take an academic integrity pledge before some assessments (if applicable; otherwise delete this bullet point)
- Some sessions may be recorded by the instructor. Recorded sessions will remain within the course site or be unlisted if streamed (if applicable; otherwise delete this bullet point)

Communication and Email Policies:

In communicating through email:

- Please use your UWO email address in all communications.
- In your email subject, please include ECON2122A(003) and your student number.
- When you send an email, please expect an answer within 24 hours.

Tips on How to be Successful in this Class:

Success in econometrics requires a combination of solid understanding of statistical methods, and practical application of these concepts in economics. Here are several tips that can help students excel in this class:

- 1- Econometrics heavily relies on statistical techniques, so focus on statistical concepts, including probability, hypothesis testing, regression analysis, and time-series analysis.
- 2- Attend the office hours and ask questions.
- 3- Collaborating with peers in a study group can be beneficial. Discussing concepts with others can offer new perspectives and insights. Explaining concepts to your peers is also an effective way to reinforce your own understanding.
- 4- Practice, practice, practice.

PLEASE NOTE
DEPARTMENT & UNIVERSITY POLICIES FOR FALL 2024

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 can 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 3.

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** first term full or half course: **Fri, Sept 13, 2024**
- Deadline to **DROP/WITHDRAW** first term full or half course: **Mon, Dec 2, 2024**

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/medicalform.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/probation_rtw/appeals.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 [Western Multicultural Calendar](#).

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 Mental Health and Support Services: Students under emotional/mental distress should visit http://uwo.ca/health/mental_wellbeing/ for more information and a complete list of resources on 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.