

Econometrics II – Winter 2021  
ECONOMICS EC2123B-001/003  
Department of Economics  
Western University

January 2022

**Instructor:** Rory McGee  
**Office:** SSC 4061  
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**E-mail:** [rmcgee4@uwo.ca](mailto:rmcgee4@uwo.ca) (Please include EC2123 in the subject line)

**Office hours:** Tuesday 2:00PM-3:00PM (SSC 4061/Zoom)  
Thursday 10AM-11:00AM (SSC 4061/Zoom)

**Delivery mode:** In-person (asynchronous online during period of virtual classes)

**Meeting time(s):** Tuesday 8:30AM -10:30AM and Thursday 8:30AM-9:30AM (**001**)  
Tuesday 11:30AM -1:30PM and Thursday 11:30AM-12:30PM (**003**)  
Asynchronous during virtual classes - posted 9AM Mondays (**001/003**)

**Classroom:** UCC-37 (**001**)  
SSC-2024 (**003**)  
OWL during virtual classes (**001/003**)

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

**Undergraduate inquiries:** 519-661-3507 or SSC Room 4075 or [econugrd@uwo.ca](mailto: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:

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:

The objective of this course is to provide the basic knowledge of econometrics that is essential to analyze economic data. It covers the basic tools of estimation and inference in the context of single equation linear regression model. This course serves as an introduction to regression analysis, beginning with multivariate probability distributions and the classical linear regression model, and then moving to multiple linear regression and other extensions.

## Course Learning Outcomes:

After successful completion of this course, students will be able to:

- Understand the fundamental concepts of econometrics, and interpret regression results.
- Analyze the properties of the linear regression model.
- Perform valid statistical inference in the linear regression framework (hypothesis testing, confidence interval etc.)
- Perform simple econometric analysis on datasets and discuss their findings

## Textbook(s) and Course Materials:

- Jeffrey M. Wooldridge, *Introductory Econometrics: A Modern Approach*, 7<sup>th</sup> edition, Cengage, 2016.

Earlier versions may have a similar presentation of the material, but individual chapters may be rearranged

## Communication:

- Students should check the course OWL site every 24-48 hours
- A weekly update will be provided on OWL announcements
- Announcements may be made during lectures. In this instance, any information will also be included on the following weekly update (at the latest, it may be provided at an earlier time)
- The discussion forums will be monitored daily by instructors or teaching assistants

### Email:

For any email contact with the professor via email ([rmcgee4@uwo.ca](mailto: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.

### Zoom:

This course is synchronous and in-person. However, for the period of virtual classes announced by Western it will run as asynchronous and online.

During the period of virtual classes, the course content is delivered primarily using OWL. Office hours (and any unscheduled tutorials and synchronous lectures) will be delivered via Zoom. Students will be able to “Join” with a Zoom meeting using the tool on OWL.

My office hours are listed on page 1. Please feel free to join to my Zoom office hours using UWO e-mail to seek help or to discuss matters related to the course. If my scheduled office hours conflict with your schedule, you can request an appointment with me via email.

Conduct in a Zoom meeting will adhere to guidelines outlined by Western University. Summary of which follows:

- Students must be able to identify themselves in a Zoom meeting. Identification can include, but not limited to; activating student’s webcam for visual confirmation, or verbal confirmation.
- Students must have a microphone and on mute when joining the Zoom meeting.
- Students will preferably have a webcam available.
- **Failure to identify yourself in a Zoom Meeting will result in your removal from the meeting, and you will be unable to reconnect.**

### **Technical Requirements**

- Laptop or computer
- Stable internet connection
- Microphone
- Webcam

For technical support, see the OWL help page or contact Western Technology Services Helpdesk (<https://wts.uwo.ca/about-wts/contact.html>). Google Chrome or Mozilla Firefox are the preferred browsers for OWL; update your browser frequently.

### **Assessments and Grading:**

All regularly scheduled quizzes in this course will be held online on OWL. The Final Exam will be held in person. The tentative coverage, date, length and weight of the assessments in the calculation of your course grade are as follows:

Assessment	Tentative Dates*	Tentative Coverage	Length	Contribution to Grade
Quiz 1	February 2nd	Ch. 1 -2	1 hour	See Below
Quiz 2	March 2nd	Ch. 1-5	1 hour	See Below
Assignment 1	Due by March 18 <sup>th</sup> 6:00PM	Ch. 1-8	n/a	20 %
Quiz 3	March 30th	Ch 1-8, 10-12	1 hour	See Below
Final Exam	TBA (Exam Period)	Ch. 1-8, 10-12	3 hours	50%

\* Exact dates will be provided on OWL, either by Announcement or Calendar or both.

Quizzes [2x15%]:

- There will be three assignments throughout the term. The grade for the lowest quiz will be dropped.
- If a student submits an illness self-report or has an approved absence for only one quiz, the remaining two quizzes will be used.
- If a student submits two illness self-reports, or has two approved absences, or a combination, for two quizzes (one each), the remaining quiz will be assigned a weight of 15% and the remaining 15% will be added to the weight placed on the final exam.
- Quizzes will be timed.
- Able to start quiz on a 12-hour basis (9:00AM to 9:00PM, London Ontario time)
- The instructor will only be available to answer questions relating to quizzes by email between 9:30AM and 11:30AM and between 2:00PM and 3:00PM London Ontario time on the day of a quiz. This does not guarantee any individual email an immediate response in this time interval. Emails relating to the quiz received outside of this interval may not receive responses until the next time interval. Please ensure that your email has subject line starting with “EC 2123 Quiz” to ensure speedy response.
- Students with a reason to request that they are able to take the quiz outside of the 12 hour time window must contact the instructor, providing at least 7 days notice (e.g. no later than January 26<sup>th</sup>, February 23<sup>rd</sup> and March 23<sup>rd</sup>). They must also provide an explanation for why they require an accommodation. Requests will be considered, but students are not guaranteed an accommodation. Requests that fail to meet the deadline or fail to provide an explanation will not be granted.
- Cumulative but with more emphasis on new material
- Questions will be randomized from a question bank
- Mixed format (a combination of multiple choice, true/false, fill-in-the-blank, and/or short answer questions)
- During quizzes students are forbidden to communicate with any person other than an examination proctor or the instructor.

Assignment [1x20%]:

- Structured assignment answering multiple long answer questions requiring students conduct econometric analysis
- Submitted on OWL and using Turnitin

- Due on Friday March 18<sup>th</sup> by 6:00PM
- Students will be required to apply the tools they have learned to a dataset used to study topics in labour economics. It will require you to choose between different models for estimation, estimate simple models on the data provided and test hypotheses. Students 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.
- We will spend one lecture discussing the assignment after they have been submitted and graded
- Late assignments without illness self-reports will be subject to a late penalty of 10% per day (Including weekends and holidays). Any part of day will be rounded up to the full day. For the avoidance of doubt this means that any submission 1minute late will have the 10% penalty applied, and any submission 24hours and 1minute late would have a 20% penalty applied etc.
- Late assignments with illness self-reports must be submitted within 24 hours of submission of the last illness self-report.

#### Final [1x50%]:

- Questions may be randomized from a question bank
- Mixed format (a combination of multiple choice, true/false, fill-in-the-blank, and/or short answer questions)
- 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 exams will include all the material in the entire course.

#### Problem Sets [0%]:

- There will be a weekly problem set.
- These problem sets will be similar in difficulty to the Final Exam questions and Quizzes. Completing the problem sets is the best way to prepare for the exams and check understanding throughout the course.
- Solutions will be posted online.
- Students may submit specific problem sets (to be announced on OWL) for grading.

#### Missed assignments and quizzes:

Assignments must be submitted on time

- Late assignments without illness self-reports will receive a 15% penalty per day as outlined above
- Late assignments with illness self-reports must be submitted within 24 hours of submission of the last illness self-report
- Missed quizzes/exams without illness self-reports or approved, documented official accommodation will be given a mark of zero. Note that the lowest quiz score will be dropped from the final grade calculation.

Students with an approved absence from two quizzes will have the weight of the missed quiz(zes) transferred to the final exam. Students who miss more than two quizzes during the

term will not be permitted to reweight them to the final exam and will receive a zero grade for these missed quizzes. In addition, they are likely not to have met the course learning outcomes and may not be permitted to pass the course, regardless of grades received on the previous or remaining quizzes. They should contact the instructor for additional steps.

Students who miss any assessment (whether a quiz or final exam) must follow Western University's procedures for approval of their absence in order to receive an accommodation. Please see the Please Note Department Policies for 2021-2022 section of this syllabus for details on these procedures. If during the Winter 2022 term Western University announces any changes to these procedures, please follow those procedures.

### **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

### **Tips on How to Be Successful in this Class:**

Students in this class should understand the level of autonomy and self-discipline required to be successful.

- Make it a daily habit to log onto 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 (online) study group and meet on a weekly basis for study and peer support.
- Do not be afraid to ask questions. If you have questions or are struggling with a topic, check the online discussion boards or contact your instructor(s) and or teaching assistant(s).
- Show up to both Tuesday and Thursday 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

- Show up to office hours to ask 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
- Show up to 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 2022**

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. Students must familiarize themselves with the “**Rules of Conduct for Examinations**” [http://www.uwo.ca/univsec/pdf/academic\\_policies/exam/administration.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/exam/administration.pdf).
3. **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.
4. **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](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.

5. It is a Department of Economics policy that **NO** assignments be dated, stamped or accepted by staff. Students must submit assignments to the instructor.
6. **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](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](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](mailto:econugrd@uwo.ca). Please follow the instructions and use the appeal form shown in the above link.



7. **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.
8. Note the following **add and drop deadlines**:

Deadline to add a second term half course:

**Tuesday January 18, 2022**

Deadline to drop a second term half course:

**Monday March 14, 2022**

### **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**

- The Faculty of Social Science's policies on academic accommodation are found at [https://counselling.ssc.uwo.ca/procedures/academic\\_consideration.html](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](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. Self-Reported Absences cannot be used once a student has proceeded to start to write a test or exam.
- **Self-Reported Absences:** Students will have two opportunities during the fall and winter terms to receive academic consideration if they self-report a missed assessment using the online self-reported absence portal, provided the following conditions are met: the assessment is missed due to an absence of no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted otherwise on the syllabus. Students are not able to use the self-reporting option in the following circumstances:
  - for exams scheduled by the Office of the Registrar (e.g., final exams)
  - absence of a duration greater than 48 hours
  - assessments worth more than 30% of the student's final grade
  - if the student has opened or started the test or exam
  - if a student has already used the self-reporting portal twice during the fall/winter terms

If the conditions for a Self-Reported Absence are *not* met, students will need to provide a Student Medical Certificate (SMC) if the absence is medical or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office for more information about the relevant documentation. It is strongly recommended that students notify the instructor as soon as possible, ideally before the assessment, when they become aware of an absence. University policy is that students must communicate with their instructors no later than 24 hours after the end of the period covered by the SMC or immediately upon their return from their documented absence. Failure to follow University policy and procedures may result in denial of academic accommodation and a grade of zero.

- **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. **All required documentation for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.**
- **Western University policy on Consideration for Student Absence** is available here: [Policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry Programs.](#)
- **Student Medical Certificate (SMC):** This form is available here: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/medicalform.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf)
- **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 [https://uwo.ca/health/mental\\_wellbeing/](https://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.