

ECONOMETRICS II  
ECONOMICS EC2123B-001/003  
Department of Economics  
Western University

**January 2020**

**General Information:**

**Instructor:** Shahed Khan  
**Office:** 4050 SSC  
**Phone:** 519-661-2111 ext. 85349  
**E-mail:** mkhan333@uwo.ca  
**Office hours:** TBA

**Classroom meeting time(s) & location:**

Section 001 T 8:30 – 10:30, TH 8:30 – 9:30, UCC 37

Section 003 T 12:30 – 1:30, TH 12:30 – 2:30, SSC 2028

**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 Note:**

The prerequisite(s) for this course is (are) **Economics 2122A/B**; and 0.5 from **Mathematics 1225A/B, Calculus 1000A/B, Calculus 1500A/B or the former Calculus 1100A/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 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. We will first start with the simple linear regression model, introduce the ordinary least squares estimator, its properties, and use in statistical inference. Then we will review the multiple regression model and the properties of the estimates. We will also discuss how various technical problems inherent in economic analysis should be solved.

## **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.)

## **Textbook(s):**

Required Textbook:

- Jeffrey M. Wooldridge, *Introductory Econometrics: A Modern Approach*, 7<sup>th</sup> edition, South-Western College Pub.
- This textbook is required for assignments/readings. Earlier editions have minor differences and can be used.

Other Recommended Reference:

- James H. Stock and Mark W. Watson, *Introduction to Econometrics*, 4<sup>th</sup> edition, Prentice Hall.

## **Grading:**

Your final grade will depend on your performance on the following assessments: five assignments (only the best 4 assignments count), which together are worth 20% (i.e., 5% each), a midterm worth 40%, and a final exam worth 40%. Each assignment will be due one week after it is announced in class. Assignments must be handed in to me in class on the due date. Late assignments will be marked as zero with the exception of officially excused students. Students who miss a term test due to medical or compassionate grounds (and can provide the appropriate documentation) will have the weight transferred to the final exam. For all missed exams, you must submit your valid documentation to Academic Counselling within 2 business days of the exam date. You must also notify your instructor prior to the test or at least within 24 hours after the excused period. There will be NO make-up midterm examination. Students who miss a term test and do not provide acceptable documentation receive a grade of zero.

Midterm Saturday Feb 29, 2:00-4:00 pm  
Final examination, Set by Registrar

### **Topics Covered and Readings:**

The course will follow the required textbook (see above). The tentative outline is as follows:

1. Introduction to Econometrics and Economic Data
  - Chapter 1
2. Simple Linear Regression
  - Chapter 2
3. Multiple Linear Regression: Estimation
  - Chapter 3
4. Multiple Linear Regression: Inference
  - Chapter 4
5. Multiple Linear Regression: OLS Asymptotics
  - Chapter 5
6. Multiple Linear Regression: Further Issues
  - Chapter 6
7. Multiple Linear Regression: Dummy Variables
  - Chapter 7
8. Heteroskedasticity
  - Chapter 8
9. Time Series (if time permits)
  - Chapter 10, 11 and 12

Note: Some material in some chapters will be excluded, which will be announced as the course progresses.

**Please Note**  
**Department Policies for 2019-2020**

Remember that 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 and policies for the Faculty of Social Science and the Department of Economics are posted online in the current Western Academic Calendar at:  
<http://westerncalendar.uwo.ca>.
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 a notation on an official academic transcript, 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 in class or to the instructor during office hours.
6. When appealing a mark, students should refer to 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.

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 with a written appeal (e-mails are not acceptable) to the Undergraduate Director in Economics, stating the reasons for their appeal. A checklist is provided at:  
[http://economics.uwo.ca/undergraduate/program\\_counselling/responsibilities\\_policies.html#appeals](http://economics.uwo.ca/undergraduate/program_counselling/responsibilities_policies.html#appeals).

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: **January 14, 2020**

Deadline to drop a second term half course: **March 7, 2020**

9. 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.

### **Policy on Tests, Final Exams and on Missed Academic Responsibilities**

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 book travel arrangements AFTER final exam dates have been posted; travel is not an acceptable excuse for absence from a final exam.

Students who are temporarily unable to meet academic requirements due to extenuating circumstances can follow Western University procedures to request academic consideration through the following routes:

- a) Submit a Self-Reported Absence form if the conditions for submission are met (e.g., only for exams or assessments worth 30% or less of the course mark; not applicable to final exams; maximum 2 self-reported absences per academic year; see [link](#) for full list of conditions and info).

If the conditions for submission of a Self-Reported Absence form are not met, then:

- b) For medical absences, submit a Student Medical Certificate (SMC) signed by a licensed medical or mental health practitioner along with a request for academic consideration to Academic Counselling in the student's home Faculty (see [link](#) for full info) ; or
- c) For non-medical absences (e.g., religious or compassionate), submit appropriate documentation to Academic Counselling in the student's home Faculty (see [link](#) for full info).

It is strongly recommended that students notify their instructors as soon as possible. University policy is that students **must** communicate with their instructors no later than **24 hours** after the end of the period covered by either the self-reported absence or SMC, or immediately upon their return following a documented absence. Failure to follow University policy and procedures may result in denial of academic accommodation and a grade of zero. Students should also set up an appointment to meet with their instructor as soon as possible. If the instructor is not available, send an email message, copying the Undergraduate Coordinator at [econugrd@uwo.ca](mailto:econugrd@uwo.ca).

Note: Academic consideration is not normally intended for long-term, recurring absences, an existing disability, or high levels of stress related to academic performance. In such cases, students should consult their academic counsellor. See [link](#) for full information.

In all cases, if the documentation submitted to request academic consideration is not acceptable, students will receive a grade of zero for the missed test, exam, or assignment.

**For full information about Western University’s policies and procedures for student absences and requests for academic consideration, please visit this [link](#).**

### **Policies Regarding Academic Accommodation**

The Faculty of Social Science’s policies regarding academic accommodation is found at [http://counselling.ssc.uwo.ca/procedures/having\\_problems/index.html](http://counselling.ssc.uwo.ca/procedures/having_problems/index.html).

“Academic Rights and Responsibilities” are also outlined in the Western Calendar at <http://westerncalendar.uwo.ca/PolicyPages.cfm?PolicyCategoryID=1&command=showCategory&SelectedCalendar=Live&ArchiveID=>. Claiming that “you didn’t know what to do” is not an acceptable excuse for not following the stated procedures.

### **Policy Regarding Class Attendance**

If the instructor deems a student’s class attendance as unsatisfactory, that student may be prohibited from writing the final examination. If there is intent to make use of this University policy, the student will be notified in writing.

### **Statement on Mental Health and Support Services**

Students under emotional/mental distress should visit [http://uwo.ca/health/mental\\_wellbeing/](http://uwo.ca/health/mental_wellbeing/) for more information and a complete list of resources on how to obtain help.