# Huron University College Department of Economics Econ 2222– Intermediate Econometrics I Section 550 Fall 2022 Classroom: V208 Time: Wednesdays 9:30 -11:30 am Fridays 10:30-11:30 am

Instructor: Dr. Mahdiyeh Entezarkheir Office: v122 E-Mail: Please send your emails to: menteza@uwo.ca Phone: 519-438-7224 ext217

**Instructor's Office Hours:** Thursdays 10 to 11 am in Zoom. To avoid any delay during office hours, please send me an email to book a spot. If this timing is not conducive to your schedule, please feel free to email me so that we can set up an appointment. The office hours will be conducted in Zoom, and the Zoom link will be provided to students once they book their spot. If a student wants an in-person office hour, they should let me know via email (menteza@uwo.ca).

## Course Webpage:

https://owl.uwo.ca/portal Please check announcements of the course at the above address regularly.

## **Course Objectives**

The objective of this course is to familiarize students with descriptive statistics, probability, confidence intervals, tests of hypotheses, and simple and multiple linear regression. Concepts will be explained using examples and problems. There is a large amount of material to cover in this course. I will attempt my best to cover as much as the limited time will permit.

## **Course Method**

This course is designed to introduce students to statistical and econometrics methods needed in economics. We begin the term with some introduction to data in statistics. We proceed with explaining descriptive statistics such as mode and median. Then, we will move to probability and probability distributions. Sampling, confidence intervals, hypothesis testing, simple and multiple regressions, and more advanced topics on regression analysis such as heteroskedasticity will also be covered in this course conditional on the amount of time that we have. In order to help students to develop analytical and quantitative skills to handle economic problems with data analysis, a considerable amount of practice questions will be solved during each lecture.

# **Prerequisites**

Elementary algebra and calculus, Economics 1021A/B and 1022A/B, or Economics 1020, 0.5 from Mathematics 1225A/B, Calculus 1000A/B, 1100A/B, and 0.5 from Mathematics 1229A/B, Calculus 1301A/B, 1501A/B, the former Linear Algebra 1600A/B; or the former Mathematics 030.

# **Completion**

The final grade is a weighted average of the following components:

- Assignment 20% (Details will be specified in class)
- Midterm exam, 35% [Wednesday, October 26, during class time]
- Cumulative Final exam, 45%
- Group bonus Pop-Quiz (on Top of 100%)

I report the highest of Mark A and Mark B at the end of the term.

Mark A=35% Midterm+20% Assignment+45% Final+bonus quiz

Mark B=25% Midterm+20% Assignment+55% Final+bonus quiz

-Assignment (20%)

• Assignments may or may not be group assignments dependent on available resources for the instructor.

In case of group assignments

- Number of students in each group will be decided by the instructor.
- I will group students in alphabetical orders, and I will announce groups on Owl.
- If a student would like to change his or her group and join another group, that student needs to get into a mutual agreement with a student in the other group. Then, both students should email me about their group change. Instructor will not do the negotiations.
- Any group change must be done by <u>September 29 by 4:00 pm.</u> Changes after this time are not allowed.
- If a student in a group does not participate, it is the duty of the rest of the group to inform the instructor. How?
  - A student who feels a groupmate is shirking should send an email to that student, cc me (menteza@uwo.ca) in that email, and explain the problem to that student at least a week before the due date of the assignment.
  - I will also contact that student, and if I am convinced that the suggested student is indeed shirking, I will give that student zero on that assignment.
  - I do not accept any complaints from groupmates after the assignment is submitted.
- Each student or in the case of group assignment, the group will solve the assignment and hand in only one copy, which is typed (not hand-written) and stapled, on the due date of the assignment right at the beginning of the class. Any graph in the assignment can be plotted by hand.
- Late or missed assignment submission results in a mark of zero.
- In the case of group assignments, duplicate submission of an assignment will result in a mark of zero for the whole group, as it is a waste of time for the instructor.
- Each assignment will be solved in class on the due date. Thus, a late assignment does not make sense.
- No answer key for assignments will be posted online. It will be solved on the board. Please be in class to get the correct answer.

-Midterm exam (35%) on Oct 26

- Midterm is based on the lectures which will be specified by the instructor.
- The format of the exam will be explained in the class.
- Any complaint on the midterm mark should be done within 15 days from the day that midterm marks are announced. No complaint on the midterm mark will be considered after this date or after final exam. Any student that submits a test for remarking should understand that their grade may improve, remain unchanged or perhaps even decrease as a result of the remarking process.

- No make-up tests will be provided, if a student is absent. For Academic Accommodation for Medical/Non-Medical Grounds please refer to the appendix that follows this outline. In case proper documentation is not provided in a timely manner, the student receives no grade on the test and his/her final grade will be computed in accordance with the specified assessment above.
- If proper documentation is provided, the grade of the missed test will be prorated to the final exam of the course.

-Cumulative Final Exam (45%)

- Final exam will be scheduled by the registrar.
- The final exam is cumulative, which means it will cover all course material for the whole term.
- The Registrar's Office will send a final grade to each student.

-Bonus Pop-quiz

- There will be pop quizzes throughout the term in class time conditional on the availability of resources for marking.
- Each quiz is worth 1%, and it is a bonus mark on top of 100%.
- Depending on the pace of lectures, there will be around 5 to 10 quizzes. Therefore, be in class not to miss these bonus marks. They are usually very helpful.
- If a student comes to the class after the quiz distribution, that student is more than welcome to join the class but he/she cannot take the quiz.
- If for whatever reason a student misses a quiz, even if he or she has a doctor's note, or any other acceptable reason for being absent, that student will miss the pop quiz mark. Please keep in mind that these quizzes are for bonus marks.
- The mark for the pop quiz will not be provided throughout the term. Please do not ask.

# Policy on Missed Classes

If you miss a class, read notes carefully and if you still have questions, please contact me for your questions during office hours. Otherwise, you will need to use a tutor.

# Textbook

**Required**: Paul Newbold, William Carlson, and Betty Thorne, Statistics for Business and Economics

- The textbook is available at the BookStore at western
- Textbook is required as
  - strongly recommend reading the chapters in advance.
  - o solve specific practice questions from the text.

## Sources for Practice Questions

- Examples solved during lectures: I will solve practice questions during lectures as much as time permits.
- Sets of practice questions with their solutions are posted on the OWL.
- Group or individual assignment during the term.
- Bonus pop-quizzes during the term.

# Tentative Course Schedule

We are going to cover the following topics during lectures, as much as time permits:

• Descriptive Statistics (Chapters 1, 2)

- Introduction to Probability (Chapter 3)
- Probability Distribution (Chapters 4 and 5)
- Sampling and Sampling Distribution (Chapter 6)
- Intervals (Chapters 7 and 8)
- Hypothesis Testing (Chapters 9 and 10)
- Simple Regression (Chapter 11)
- Multiple Regression (Chapter 12)
- Additional Topics in Regression Analysis (Chapter 13)

# Lecture Notes and Practice Questions Solved during Lectures:

- I will post lecture slides (if any) before class on the course webpage for your convenience.
- These are the lecture notes that I base my lectures on, but of course, I elaborate on them in class. These notes are useful for review, but they are not meant to take the place of lectures. Students who rely on notes only, traditionally do not do well on their exams in my courses.
- Additionally, I solve a lot of practice questions during lectures. To get solutions, students need to be present in the lectures. I do not provide answer keys to those questions separately. <u>Please do not ask</u>. Answers will be written by the instructor on the board only.
- Students who are present during lectures and get the written answer to practice questions on the board are more than welcome to ask questions during class and office hours with regards to those solutions. However, if a student was absent, I do not solve the question for the absent student separately during office hours. Thus, absent students should not expect such a service from the instructor.
- All the materials covered in lectures either on the posted slides or not are in exams.

## Communication with the Instructor:

- Please only e-mail the instructor for administrative purposes and please only email to this address:
  - <u>menteza@uwo.ca</u>
- When emailing the instructor, the **subject of the e-mail must contain Econ 2222 and the days that you are taking the course**. I am teaching two sections of this course. I should know when your class is. Otherwise, the email will not be considered, as I do not know exactly who the sender is.
- I will respond to emails within two business days.
- I answer your course content questions in person during class or via Zoom office hours to help you understand better and avoid any miscommunications that may happen via email or phone.

# Instructor's Intellectual Property on Lectures

I would like to have a reminder that I, the instructor, own the intellectual property of my lecture and lecture materials even when such lectures or materials are posted online and students are not to post lectures or lecture materials to any other websites or platforms or use the lecture recording or materials for any other purpose without my consent.

# Note on Recording Lectures, Taking Pictures, and Using Cell phones:

- Please respect class and your friends and turn off your cell phone during lectures.
- Instructor prohibits recording her lectures and taking pictures from the board or class.

# Conduct of Students in Lectures and Office Hours:

The registration at Huron University College implies that registered students have accepted the principles of respect, dignity, and well-being of others. Thus, students are expected to follow proper behaviour. For more information about the rules and regulations of the Code of Student Conducts, you may consult the Code of Student Conduct Policy available at https://www.uwo.ca/univsec/pdf/board/code.pdf.

Moreover, students should behave in a professional manner that supports the learning environment of others during lectures or office hours. Laptops should be used for classroom purposes only so as not to disrupt the people sitting around. Students should arrive in sufficient time to be seated and ready for the start of the class and remain silent while the professor or another student is speaking. If a student is going to be late or knows that will have to leave class early, he or she should be courteous: sit in an aisle seat and enter and leave quietly.



## Appendix to Course Outlines: Academic Policies & Regulations Fall/Winter 2022

#### Pandemic Contingency

Huron will continue to follow the guidance of public health and government officials. It is anticipated that there will be no further disruptions to in-person instruction. This is subject to change.

#### **Student Code of Conduct**

Membership in the community of Huron University College and Western University implies acceptance by every student of the principle of respect for the rights, responsibilities, dignity and well-being of others and a readiness to support an environment conducive to the intellectual and personal growth of all who study, work and live within it. Upon registration, students assume the responsibilities that such registration entails. While in the physical or online classroom, students are expected to behave in a manner that supports the learning environment of others. Please review the Student Code of Conduct at: <u>https://huronatwestern.ca/sites/default/files/Res%20Life/Student%20Code%20of%20Conduct%20-</u> %20Revised%20September%202019.pdf.

#### Prerequisite and Antirequisite Information

Students are responsible for ensuring that they have successfully completed all course prerequisites and that they have not completed any course antirequisites. Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

#### **Attendance Regulations for Examinations**

A student is entitled to be examined in courses in which registration is maintained, subject to the following limitations:

- 1) A student may be debarred from writing the final examination for failure to maintain satisfactory academic standing throughout the year.
- 2) Any student who, in the opinion of the instructor, is absent too frequently from class or laboratory

periods in any course will be reported to the Dean of the Faculty offering the course (after due warning has been given). On the recommendation of the Department concerned, and with the permission of the Dean of that Faculty, the student will be debarred from taking the regular examination in the course. The Dean of the Faculty offering the course will communicate that decision to the Dean of the Faculty of registration.

Review the policy on Attendance Regulations for Examinations here: <u>Academic Calendar - Western</u> <u>University (uwo.ca)</u>

#### **Statement on Academic Offences**

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following website: <u>Academic</u> <u>Calendar - Western University (uwo.ca)</u>. The appeals process is also outlined in this policy as well as more generally at the following website:

https://www.uwo.ca/univsec/pdf/academic\_policies/appeals/appealsundergrad.pdf.

#### **Turnitin.com**

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (http://www.turnitin.com).

#### **Statement on Use of Electronic Devices**

It is not appropriate to use electronic devices (such as, but not limited to, laptops, tablets, cell phones) in the classroom for non-classroom activities. Such activity is disruptive and distracting to other students and to the instructor, and can inhibit learning. Students are expected to respect the classroom environment and to refrain from inappropriate use of technology and other electronic devices in class.

#### Statement on Use of Personal Response Systems ("Clickers")

Personal Response Systems ("clickers") may be used in some classes. If clickers are to be used in a class, it is the responsibility of the student to ensure that the device is activated and functional. Students must see their instructor if they have any concerns about whether the clicker is malfunctioning. Students must use only their own clicker. If clicker records are used to compute a portion of the course grade:

- the use of somebody else's clicker in class constitutes a scholastic offence
- the possession of a clicker belonging to another student will be interpreted as an attempt to commit a scholastic offence.

#### Academic Consideration for Missed Work

All students pursuing academic consideration, regardless of type, must contact their instructors no less than 24 hours following the end of the period of absence to clarify how they will be expected to fulfill the academic responsibilities missed during their absence. **Students are reminded that they should consider carefully the implications of postponing tests or midterm exams or delaying submission of work, and are encouraged to make appropriate decisions based on their specific circumstances.** 

Students who have conditions for which academic accommodation is appropriate, such as disabilities or ongoing or chronic health conditions, should work with Accessible Education Services to determine appropriate forms of accommodation. Further details concerning policies and procedures may be found at: <a href="http://academicsupport.uwo.ca/">http://academicsupport.uwo.ca/</a>.

#### Policy on Academic Consideration for a Medical/Non-Medical Absence

#### (a) Consideration on <u>Medical Grounds</u> for assignments worth *less than 10%* of final grade: Consult Instructor Directly and Contact Academic Advising

When seeking consideration on **medical grounds** for assignments worth *less than 10%* of the final course grade, the student should contact the instructor directly. The student need only share broad outlines of the medical situation. The instructor **may** require the student to submit documentation to the academic advisors, in which case she or he will advise the student and inform the academic advisors to expect documentation. If documentation is requested, the student will need to complete and submit the <u>Student</u> <u>Medical Certificate</u>. The instructor may <u>not</u> collect medical documentation. The advisors will contact the instructor when the medical documentation is received, and will outline the severity and duration of the medical challenge as expressed on the Student Medical Certificate and in any other supporting documentation. The student will be informed that the instructor has been notified of the presence of medical documentation, and will be instructed to work as quickly as possible with the instructor on an agreement for accommodation.

# b) <u>Medical Grounds</u> for assignments <u>worth 10% or more of final grade</u>: Go Directly to Academic Advising

University Senate policy, which can be found at <u>Academic Calendar - Western University (uwo.ca)</u> requires that all student requests for accommodation on medical grounds for assignments worth 10% or more of the final grade be made directly to the academic advising office of the home faculty (for Huron students, the "home faculty" is Huron), with supporting documentation in the form (minimally) of the Senate-approved Student Medical Certificate found at:

https://www.uwo.ca/univsec/pdf/academic\_policies/appeals/medicalform.pdf.

The documentation is submitted in confidence and will not be shown to instructors. The advisors will contact the instructor when the medical documentation is received, and will outline the severity and duration of the medical challenge as expressed on the Student Medical Certificate and in any other supporting documentation. The student will be informed that the instructor has been notified of the presence of medical documentation, and will be instructed to work as quickly as possible with the instructor on an agreement for accommodation. The instructor will not normally deny accommodation where appropriate medical documentation is in place and where the duration it describes aligns with the due date(s) of assignment(s). Before denying a request for accommodation on medical grounds, the instructor will consult with the Dean. The instructor's decision is appealable to the Dean.

# <u>c)</u> Consideration on <u>Non-Medical</u> Grounds: Consult Huron SupportServices/Academic Advising, or email <u>huronsss@uwo.ca</u>.

Students seeking academic consideration for a **non-medical** absence (e.g. varsity sports, religious, compassionate, or bereavement) will be required to provide appropriate documentation. All consideration requests must include a completed <u>Consideration Request Form</u>. Late penalties may apply at the discretion of the instructor.

Please review the full policy on Academic Consideration for medical and non-medical absence at: <u>accommodation\_medical.pdf (uwo.ca).</u> Consult <u>Huron Academic Advising</u> at <u>huronsss@uwo.ca</u> for any further questions or information.

#### Support Services

For advice on course selections, degree requirements, and for assistance with requests for medical accommodation, students should email an Academic Advisor in Huron's Student Support Services at

<u>huronsss@uwo.ca</u>. An outline of the range of services offered is found on the Huron website at: <u>https://huronatwestern.ca/student-life/student-services/</u>.

Department Chairs, Program Directors and Coordinators are also able to answer questions about individual programs. Contact information can be found on the Huron website at: <u>https://huronatwestern.ca/contact/faculty-staff-directory/</u>.

If you think that you are too far behind to catch up or that your workload is not manageable, you should consult your Academic Advisor. If you are considering reducing your workload by dropping one or more courses, this must be done by the appropriate deadlines. Please refer to the Advising website, <u>https://huronatwestern.ca/student-life/student-services/academic-advising/</u> or review the list of official Sessional Dates on the Academic Calendar, available here: <u>http://www.westerncalendar.uwo.ca/SessionalDates.cfm</u>.

You should consult with the course instructor and the Academic Advisor who can help you consider alternatives to dropping one or more courses. Note that dropping a course may affect OSAP and/or Scholarship/Bursary eligibility.

Huron Student Support Services: <u>https://huronatwestern.ca/student-life/student-services/</u> Office of the Registrar: <u>https://registrar.uwo.ca/</u> Student Quick Reference Guide: <u>https://huronatwestern.ca/student-life/student-services/#1</u> Academic Support & Engagement: <u>https://academicsupport.uwo.ca/</u> Huron University College Student Council: <u>https://huronatwestern.ca/student-life/beyond-classroom/hucsc/</u> Western USC: <u>http://westernusc.ca/your-services/#studentservices</u>

#### Wellness and Health Supports at Huron and Western

University students may encounter setbacks from time to time that can impact academic performance. Huron offers a variety of services that are here to support your success and wellbeing. All Huron staff and faculty have received training on responding to disclosures of Gender-Based Sexual Violence (GBSV); students should know that the Community Safety Office is a resource for survivors, providing support and, if desired, guidance while referring them to the further supports that they may require. Please visit <u>https://huronatwestern.ca/student-life-campus/student-services/wellness-safety</u> for more information or contact staff directly:

Wellness Services: <u>huronwellness@huron.uwo.ca</u> Community Safety Office: <u>safety@huron.uwo.ca</u> Additional supports for Health and Wellness may be found and accessed at Western through, <u>https://www.uwo.ca/health/</u>.

Western Calendar - Policy Pages -

Academic Calendar - Western University (uwo.ca)