

Huron University College
Department of Business and Economics
Eco 3313E– Research Methods
Fall 2018 and Winter 2019
Classroom: W106
Time for Fall and Winter Terms: Tuesdays 10:30 to 11:30
Thursdays 9:30-11:30

Instructor: Dr. Mahdiyeh Entezarkheir

Office: v122

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Phone: 519-438-7224 ext217

Instructor's Office Hours: Tuesdays 11:30 to 12:30. 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.

Classes in Computer lab: We will have a number of lectures in Computer lab most probably on Tuesdays. I will announce the details in class.

Course Webpage:

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

Please check announcements of the course in the above address regularly.

Course Objectives

This course aims to familiarize students with tools and techniques for applied economic research. At the end of this course students develop some ability in applying some of the regression methods to cross-section and panel data.

Class Method

The course is a full-year course. In the first term, we have a review on linear regression analysis and we try to incorporate their applications to the real world examples. We continue this term with the analysis on non-linear regression functions, and we finish with assessment studies on multiple regression. In the second term, this course moves toward more advanced topics such as regression with panel data, regression with a binary dependant variable, and instrumental variables. 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.

Additionally, computer lab classes as a complement to lectures further familiarize students with how to use actual data for empirical analysis. The software used in computer lab classes is STATA which is one of the most popular software for cross-sectional and longitudinal data.

Prerequisites

- Students are responsible for checking that they have successfully completed all course prerequisites. 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.

- Instructor assumes all students are familiar with elementary algebra and calculus, intermediate microeconomics (Eco 2261 A/B) and econometrics (Eco 2223A/B).

Course Completion

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

- **Exam I:** Thursday, Nov 1, 2018 - In class (20%)
- **Empirical Project I:** Details will be provided in class.
Proposal due on Thursday, October 18, 2018- Right in the beginning of the class (10%)
Poster progress meetings during the term and poster presentation at CURL conference on Wednesday, Nov 28 (20%)
- **Exam II:** Thursday, March 14, 2019 - In class (20%)
- **Empirical Project II:** Details will be provided later in class.
Proposal due on Thursday, February 14, 2019- Right in the beginning of the class (10%)
Poster progress meetings during the term and poster presentation on Wednesday, April 10 (20%)

-Empirical projects are group projects. Thus, participation of all members of the group is mandatory and free-riding is not allowed.

-I will group students in alphabetical order, 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. The instructor will not do the negotiations.

-Any group change must be done by September 28. Changes after this date 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 (prof.mahdiyeh@gmail.com) in that email, and explain the problem to that student at least a week before the due date of the group work in the course.
- 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 work.
- I do not accept any complaint from groupmates after the assignment is submitted.

-During the first term (fall 2018), projects and some preliminary questions are specified by me. Each group will receive one project to work on (announced on OWL). In the second term (winter 2019), we will continue with same groups, and each group will choose their own topic of interest for the project. A guideline for how to approach the project in the second term will be posted in January.

-For the project in the second term (winter 2019), each group has to meet with the instructor to discuss their proposal. Each group has to make an appointment and meet with the instructor in the month of **January**, and all group members must attend this meeting.

-For the details of how to write the proposal and its requirements check OWL.

-We will have a presentation by Ryan Rabie from Huron's library during the class time on Oct 25. He will explain how to prepare a poster. The attendance in this session is mandatory. Attendance is mandatory. Absence of any student warrants losing 2 marks.

-I will try to have a presentation from the library on how to access data sets in the second term. I will announce the date in the second term. Attendance at this presentation is mandatory for all students. Absence of any student warrants losing 2 marks.

-Exams I and II are during class time and based on the lectures which will be specified by the instructor. For **Academic Accommodation for Medical/Non-Medical Grounds** please refer to the following. In case proper documentation is not provided in a timely manner, the student receives no grade on that task and his/her final grade will be computed in accordance with the specified assessment above. If a proper documentation is provided, the grade of the missed test will be prorated to other tasks of the course. No make-up tests will be provided for missed exams.

-Any complaint on any of the exam marks should be done within 15 days from the day that marked exams are returned in class. No complaint on the exam mark will be considered after this date. 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.

Policy on Missed Classes

If you miss a class, read notes carefully and if you still have questions come and see me otherwise you will need to use a tutor.

Textbooks

Required: Stock, James H. and Mark W. Watson (2011), Introduction to Econometrics, 3rd Edition, Addison-Wesley. (Hereafter SW)

The textbook is available from the Bookstore at Western.

Software

STATA 14 statistical software is available for use in Huron Computer Lab. Please note that the software used on University facilities is provided under license agreements with various vendors. Unless explicitly stated, otherwise you must assume that all software on all systems is protected by copyright.

Tentative Course Schedule***

Term 1:

- Linear Regression with One Regressor (SW Chapter 4)

- Hypothesis Tests and Confidence Intervals in Linear Regression with a Single Regressor (SW Chapter 5)
- Linear Regression with Multiple Regressors (SW Chapter 6)
- Hypothesis Tests and Confidence Intervals in Multiple Regression (SW Chapter 7)
- Nonlinear Regression Functions (SW Chapter 8)
- Assessing Studies Based on Multiple Regression: Internal and External Validity (SW Chapter 9)

Term 2:

- Regression with Panel Data
Panel Data (10.1, 10.2)
Fixed Effects Regression and Standard Errors(10.3, 10.5)
Regression with Time Fixed Effects (10.4)
Empirical Applications
- Regression with a Binary Dependent Variable
Binary Dependent Variables and the Linear Probability Model (11.1)
Probit Regression (11.2)
Logit Regression (11.2)
Estimation and Inference in the Logit and Probit Models (11.3)
Empirical Applications
- Instrumental Variables Regression
Instrumental Variables Estimator with a Single Regressor and a Single Instrument (12.1)
The General IV Regression Model (12.2)
Instrument Validity (12.3 and 12.5)
Empirical Applications

***** This course schedule is tentative. Some of the materials in this schedule might need more or less emphasis. To accommodate that need, this schedule might be updated as we continue through the term.**

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 the 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 an answer key to those questions separately. Please do not ask. Answers will be written by the instructor on the board only.
- **Students who are present during lectures and get the written answer on the board for practice questions are more than welcome to ask questions during 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.**

- Materials covered in lectures whether 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:
prof.mahdiyeh@gmail.com
- When emailing the instructor, the **subject of the e-mail must contain Eco 3313**. Otherwise, the email will not be considered as I do not know exactly who the sender is.
- I will respond to emails within 24 hours during business hours.
- I answer your course related questions in person to help you understand better and avoid any miscommunication via email or phone. So use office hours or feel free to make an appointment. I also welcome as many questions as possible during class time.

Note on Recording Lectures and Cell phones:

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

Writing a Reference Letter:

- If you need a reference letter, I will need at least a two-week notice.

Conduct of Students in Lectures and Office Hours:

The registration at Huron University College implies that registered students have accepted the principals of respect, dignity, and well-being of others. Thus, students are expected to follow a proper behaviour. For more information about rules and regulations related to the Code of Student Conduct, you may consult with 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 you. 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 know that will have to leave class early, he or she should be courteous: sit in an aisle seat and enter and leave quietly.



The Appendix to Course Outlines is posted on the OWL course site.