# ECO375, Applied Econometrics, Summer 2021

Lecture:Online AsynchronouslyTutorial:Online, time TBAInstructor:Yuanyuan WanPhone:416-978-4964

Email: yuanyuan.wan@utoronto.ca

**Instructor Office Hours**: By appointment

**TA:** Thomas Stringham

Teaching Assistant Email: <a href="mailto:tom.stringham@mail.utoronto.ca">tom.stringham@mail.utoronto.ca</a>

TA Office Hours: By appointment

## **Course Description**

This course is an introduction to econometrics. The course will cover both statistical foundations and the application of multiple regression models, with an emphasis on cross-sectional data. Econometric methods will be illustrated using application of regressions to a wide variety of economic questions and data sources, including the use of statistical software. Some advanced topics in causal inference will also be discussed.

# **Course Delivery Method**

Lectures are pre-recorded and delivered online asynchronously. Learning is self-paced and not reliant on a meeting schedule. However, a homework assignment will be given each week and is due in a week. TA tutorials are also delivered online. Students need access a computer with functional microphone and be able to use Bb Collaborate (integrated in Quercus) to communicate with the instructor and TA. Students also need to be able to scan, or photo, or type in their homework and upload the documents to Quercus.

### **Textbook**

"Introductory econometrics: a modern approach", Jeffrey M. Wooldridge, ISBN: 9781337558860.

## **Previous Training:**

Prerequisites: (i) ECO200Y1/ECO204Y1/ECO206Y1+ECO220Y1 (70%) / (STA237H1 (70%)

+STA238H1 (70%)) / ECO227Y1 / (STA257H1+STA261H1)

Recommended: MAT223H1 or MAT240H1 Exclusion: ECO327Y5, ECO375H5

#### Software

**Stata IC, version 15**. Earlier versions are also admissible, but they may not be supported by the instructor or TA. Students can purchase Stata at discounted prices. See <a href="https://mdl.library.utoronto.ca/technology/statistical-software">https://mdl.library.utoronto.ca/technology/statistical-software</a> for details.

#### **Course Website**

The Quercus site will also be used manage class communications. Course materials will be uploaded to the Quercus. Check the announcements posted there regularly.

## **Score Policy**

The final mark of this course is based on four parts: graded homework, the final assessment, Quizzes, and an essay. The weights are shown in the table below.

#### **Graded homework (30%)**

There will be three graded homework, each count for 10% of the course grades. Homework must be submitted to Quercus in PDF file format. If the homework involves empirical work, Stata log files should be submitted too.

Late homework receives zero grades unless I receive an email notification before the due date. If a student indeed misses the due date of the homework with legitimate reasons, he or she must submit the homework within 72 hours of the original due date to get a mark. Otherwise, the student receives zero grade.

#### Final Assessment (40%)

We have a final assessment for this course. The assessment will be conducted online (with a time limit and simultaneously for all students). Students are required to finish the test within a certain amount of time, scan (or photo) their answers, and upload the answers to Quercus. A camera is needed for exam invigilation.

### **Essay** (10%)

The essay is based on students' general understanding of the course content. The specific topic will be given at the end the course (by August 16). Students will have one week to complete the essay (due on August 23).

### **Quizzes (20%)**

We will have four quizzes. A student can earn up to 5 points for each quiz. Students will be given a 48-hours window to access each quiz. But once a student clicks the quiz, he/she must finish it within a certain amount of time (details will be given in advance). The questions are randomly assigned, so two students will likely get different questions (but at the similar difficulty levels).

## **Course Evaluation**

Tasks	Weights	Due Dates
Homework 1	10%	July 26

Homework 2	10%	August 2
Homework 3	10%	August 9
Quizzes 1-4	20%	TBA
Essay	10%	August 23
Final Assessment	40%	TBA
Total	100%	

### **Planned Course Outline**

The following is the planned course outline (subject to minor changes).

Lectures	Course materials	Reference
Lecture 1	Syllabus, Introduction, Statistics Review	Chapter 1, Appendix A,B,C
Lecture 2	Statistics Review Simple Regression	Chapter 2
Lecture 3	Multiple Regression I	Chapter 3
Lecture 4	Multiple Regression II	Chapter 4
Lecture 5	Multiple Regression Further Issues I	Chapter 5-7
Lecture 6	Multiple Regression Further Issues II	Chapter 7-9
Lecture 7	Linear Panel Data	Chapter 13
Lecture 8	Linear Panel Data	Chapter 13
Lecture 9	Instrumental Variable and 2SLS	Chapter 15-16
Lecture 10	Instrumental Variable and 2SLS	Chapter 15-16
Lecture 11	Limited Dependent Variable Models	Chapter 17
Lecture 12	Limited Dependent Variable Models	Chapter 17
Exam period	Final exam	All lectures

# **Course Policy**

#### **Grade Dispute**

Requests for re-grading homework and/or exams must be submitted to instructor in writing within one week that the exam and/or homework are returned. The instructor will re-grade the whole problem set and/or exam instead of a single question to ensure the consistency.

#### **Academic Honesty**

"Academic integrity is a fundamental value essential to the pursuit of learning and scholarship at the University of Toronto. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that the UofT degree that you earn will continue to be valued and respected as a true signifier of a student's individual work and academic achievement. As a result, the University treats cases of academic misconduct very seriously. The University of Toronto's Code of Behaviour on Academic Matters (<a href="http://www.governingcouncil.utoronto.ca/policies/behaveac.htm">http://www.governingcouncil.utoronto.ca/policies/behaveac.htm</a>) outlines the behaviours that constitute academic misconduct, the processes for addressing academic offences, and the penalties that may be imposed. You are expected to be familiar with the contents of this document.....All suspected cases of academic dishonesty will be investigated following the procedures outlined in the Code of Behaviour

on Academic Matters." ——Academic Integrity Handbook, Office of Student Academic Integrity, Faculty of Arts and Science, University of Toronto.

### **Email Policy**

I will reply emails within 24 hours, except on weekends and holidays, with the following provisions:

- The question should require a one (or two) sentence response (maximum). If it takes more, office hours are the more appropriate venue.
- o I will not reply to emails concerning grading. For such matters, office hours are more appropriate.
- It is also (strongly) preferable that you use the University of Toronto email addresses: my spam filter is set to maximum. Moreover, university policy stipulates a preference for these email addresses.
- o Always identify yourself, course, and section in your email.
- o Please do not submit term work by email.
- The teaching assistant has two email-hours per week to reply course related questions.

## **Accessibility Needs**

The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible: <a href="mailto:disability.services@utoronto.ca">disability.services@utoronto.ca</a> or <a href="http://studentlife.utoronto.ca/accessibility">http://studentlife.utoronto.ca/accessibility</a>.