# ECO375, Applied Econometrics, Winter 2020

Lecture:	Wednesday, 11am-1pm, KP108
Tutorial:	Friday, noon, KP108
Instructor:	Yuanyuan Wan
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Email:	<u>yuanyuan.wan@utoronto.ca</u>
Instructor Office Hours:	Wednesday 2:30-4:30pm @ GE 232
TA1 (Tutorial and Grading):	Connor Campbell
Teaching Assistant Email:	<u>cjames.campbell@mail.utoronto.ca</u>
TA Office Hours:	Tuesdays 9:30-11:30am @ GE 40
TA2 (Grading):	Myeongwan Kim
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TA1 (Grading):	Quinlan Tsun-Hei Lee
Teaching Assistant Email:	<u>qt.lee@mail.utoronto.ca</u>

## **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.

## 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 three parts: graded homework, midterm exam and final exam. The weights are shown in the table below.

#### Graded homework (20%)

There will be two graded homework, each counts 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. An original legitimate supporting documents of missing homework must be presented to my office within one week of the due date of the homework. Scanned, copied, or emailed documents will not be accepted.

If a student misses the homework due date for medical reasons, he or she shall provide an original copy of a fully completed University of Toronto official "Verification of Student Illness or Injury" form. The certificate needs to be completed by a qualified medical doctor whose OHIP number must be provided. You can download the form from http://www.illnessverification.utoronto.ca

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.

#### Exams (30% midterm + 50% final)

We have a midterm exam and a final exam for this course. Midterm exam will cover the materials of the first six lectures. The final exam will cover the all lectures of the semester. I will discuss more details before the exam.

#### **Practice Homework (not counted for final marks)**

I will give practice homework in the weeks with no graded homework. The practice homework will not counts toward your final mark. The TA Conner Campbell will discuss practice homework questions during the tutorial session on Friday.

Course Evaluation				
Tasks	Weights	Due Dates		
Homework	20%	February 12 and March 25		
Midterm exam	30%	February 26		
Final exam	50%	TBA		
Total	100%			

#### **Course Evaluation**

## **Planned Course Outline**

The following is the planned course outline (subject to minor changes). Students are recommended to preview the corresponding chapters before lectures.

Week	Course materials	Reference
Week 1, January 8	Syllabus, Introduction, Statistics Review	Chapter 1, Appendix A,B,C
Week 2, January 15	Simple Regression	Chapter 2
Week 3, January 22	Multiple Regression Estimation	Chapter 3
Week 4, January 29	Multiple Regression Inference (Graded HW1 posted)	Chapter 4
Week 5, February 5	Multiple Regression Additional Issues I	Chapter 5-7
Week 6, February 12	Multiple Regression Additional Issues II (Graded HW1 due)	Chapter 7-9
Week 7, February 26	Midterm Exam (in class)	Chapter 1-7
Week 8, March 4	Instrumental Variable and 2SLS	Chapter 15
Week 9, March 11	Simultaneous Equation	Chapter 16
Week 10, March 18	Limited Dependent Variable Models (Graded HW2 posted)	Chapter 17
Week 11, March 25	Panel Data Models	Chapter 13-14
Week 12, April 1	Additional Topics in Causal Inference (Graded HW2 due)	Slides
Exam period	Final exam	All lectures

## **Course Policy**

#### **University Attendance Policy**

Attendance in all lectures is expected and strongly recommended of all students. Lecture notes serve as lecture outlines and are not substitutions of the lecture themselves.

#### **Make-up Exams and Medical Notes Policy**

A grade of zero will be given to students who do not write the test, unless an appropriate and convincing note is received **within one week** of the missed test (explaining why the test was missed).

- Make-up exams will only be scheduled based on legitimate medical reasons or acute emergencies.
- An email notice must be sent to me **before the exam**.
- Original legitimate supporting documents of absence are required (within one week). Scanned, copied, or emailed documents will not be accepted.
- When a student missed the exam for medical reasons, he or she shall provide an original copy of a fully completed University of Toronto official "Verification of Student Illness or Injury" form. The certificate needs to be completed by a qualified medical doctor whose OHIP number must be provided. You can download the form from <u>http://www.illnessverification.utoronto.ca</u>.
- It is by the University policy that there are no "make-up exams" for make-up exams.
- A make-up exam will be different from the exam given in class.
- It is an academic offence for a student to use a medical note to avoid a test if he or she is not actually sick.

• The make-up exam will be on March 6, Friday.

#### **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 (http://www.governingcouncil.utoronto.ca/policies/behaveac.htm) 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 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.
- 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.
- Always identify yourself, course and section in your email.
- Please do not send attachments of any kind.
- Please do not submit term work by email.
- The teaching assistant has one email-hour per week to reply course related questions.

#### **Off-class Meetings**

I will hold two hours' office hour every week. It is reserved for one-to-one discussion of course materials. The teaching assistant Conner Campbell will hold two hours' office hour and one hour tutorial session every week.

## **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: <u>disability.services@utoronto.ca</u> or <u>http://studentlife.utoronto.ca/accessibility</u>.