UNIVERSITY OF TORONTO ECO375H1F APPLIED ECONOMETRICS I 2011-2012 Thursday, 10:00-12:00, VC115 Friday, 11:00-12:00, VC115

Instructor

Professor Junichi Suzuki Office: Max Gluskin House, Room 306 Telephone: (416) 978-4417 Email: j.suzuki@utoronto.ca Office hours: Monday 1:30-2:30

Teaching Assistants

Joshua Murphy Hidenori Takahashi Office hours: Tuesday 9:00-10:00 at Max Gluskin House, Room GE40

Course Website

The Black Board (https://portal.utoronto.ca)

Course Outline

This is an introductory course in applied econometrics. The primary objective is to provide a solid theoretical and practical foundation for the interpretation of empirical evidence in economics. Students also learn how to apply these techniques to economic data by using statistical software.

Prerequisites

ECO200Y1/ECO204Y1/ECO206Y1,ECO220Y1(70%)/ECO227Y1/(STA257H1,STA261H1)

Prerequisites are strictly checked and enforced and must be completed **BEFORE** taking a course. It is the student's responsibility to check the prerequisites before enrolling in any course. By taking this course you acknowledge that you will be removed from the course at anytime if you do not meet all requirements set by the Department of Economics. See Faculty of Arts and Science Calendar for details. The instructor does not have any authority of waiving prerequisites.

Required Textbook

J. M. Wooldridge, Introductory Econometrics, Fourth Edition, South-Western Cengage Learning.

Copies are available at the University Book Store, or can be purchased from various online bookstores. The instructor does not recommend purchasing a copy of the previous edition **as well as fifth edition, which will be released soon according to the publisher**. All references in this course will be to the fourth edition. This book will also be used in ECO376H.

Required Statistical Software

STATA

The course involves a considerable amount of computing, and students must learn and use a sophisticated statistical software package. STATA is the *only* package that will be supported by the instructor and TA's. Students who have strong preference to use other software should contact the instructor in the first week of the lecture.

Students can purchase STATA at discounted prices. While orders are placed online, you will pick up your software at the Software Licensing Office in the Information Commons at Robarts Library. See <u>http://www.utoronto.ca/ic/software/detail/stata.html</u> for details.

There are several different types of STATA licenses for students. Buy a six-month license of Small STATA 12 if you do not plan (or are not sure) to take ECO376. If you plan to enroll in ECO376, you may consider buying an annual license of STATA/IC 12. Note that students need to take at least 60% in ECO375 to enroll in ECO376. So buying an annual license of STATA/IC 12 should be done at your own risk. DO NOT purchase a one-year license of Small STATA as Small STATA is not sufficient for ECO376.

Older versions of STATA such as STATA10 or STATA11 also suffice for this course.

Marking Scheme

The final course mark is based on the following:

- Three problem sets: For a total of 12% of the final course mark. Each problem set is worth 4% of the final course mark.
- One term test: For a total of 38% of the final course mark.
- Final exam: For a total of 50% of the final course mark.

Policies on Problem Sets

- All problem sets **must be typed** except figures and equations.
- When problem sets involve the use of statistical software, students need to submit both log file and texts. Students will be instructed how to generate log file in STATA during a tutorial session.
- Students must submit a hard copy of your problem sets to the TA during tutorial sessions on the due dates. Students are also allowed to submit their problem sets to the instructor at the lecture before the due dates.
- Neither the instructor nor the TAs will not count problem sets submitted via emails.
- Students who fail to submit problem sets on time for medical reasons may seek special consideration by submitting a medical note within a week after the problem set is due. See below for what constitutes an acceptable medical note for a missed problem set.
- Note that requests based on travel, other courses taken, employment or personal plans will not be considered.
- Only when the instructor accepts students' medical notes, their mark of the missed problem sets will be calculated as follows:
 - If you miss **a problem set**, your mark of the missed problem set is based on the **lowest** grade of the other two problem sets.
 - If you miss **two problem sets**, you will get zero for the second missed problem set. Your mark of the first missed problem set is based on the grade of the submitted problem set.
 - Needless to say, you will get zero if you miss all the problem sets for whatever reason.

Policies on the Missed Tests

• Students who miss **the term test** for medical reasons may seek special consideration by submitting a medical note within one week after the term test. See below for what constitutes an acceptable medical note for the missed term test.

- Note that requests based on travel, other courses taken, employment or personal plans will not be considered.
- When the instructor accepts students' medical notes, their mark of the missed term test will be based on their marks of the makeup term test.
- The makeup term test will be held on **November 4th**, **4:00-5:40pm**. The test will be 100 minutes.
 - Consistent with university policy, there will be no "make-up" test for the make-up test. No medical excuses will be accepted, and grade of zero will be applied if students fail to write the make-up test.
 - The make-up test covers the topics asked by the regular term test **as well as the materials covered by the lecture on October 27th.**
 - Note also that the make-up test is AFTER the drop date (November 3rd).
- Students who miss **the final exam** for reasonable reasons may initiate petitions to the Faculty of the Art and Science. See the website of the Faculty of Arts and Science for more information.

Acceptable Medical Notes

- The only accepted note is a fully completed University of Toronto Medical Certificate. You can find a copy of the form here: <u>http://www.healthservice.utoronto.ca/pdfs/medcert.htm</u>
- It must be **original** and completed by a qualified medical doctor (e.g., not an acupuncturist, chiropractor, or other health care professional).
- The doctor's OHIP registration number must be provided on the note.
- When you miss a problem set, the note must clearly state that either on the due date of the problem set or one day before the due date, the student was too sick to work on the problem set.
- When you miss the term test, the note must clearly state that on the date of the term test, the student was too sick to write the test. Illness before the test is not sufficient grounds for missing the test. Nor will I accept notes that indicate that the student would have performed "sub-optimally."

Requests for Regrading

Students may submit to the TA a **written** request for regrading problem sets and/or the term test **within one month** from the day of the tutorial during which the TA returns the graded problem

sets/the term test to students. The entire work is regarded. The final mark may go up or go down. Picking up materials late is not considered as a reason to extend this deadline.

Email Policy

Emails should be considered as a way to send some feedback about the course (e.g., typos in lecture slides, vagueness in problem sets etc.). If you have questions that require individual feedback, please come to office hours or talk to the instructor after the lecture. Each email should contain name, student number and course number and be sent from utoronto address. The TAs are NOT expected to reply to emails from students.

Academic Misconduct

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 U of T 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 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. Potential offences include, but are not limited to:

In papers and assignments:

- Using someone else's ideas or words without appropriate acknowledgement.
- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Obtaining or providing unauthorized assistance on any assignment (this includes working in groups on assignments that are supposed to be individual work).

On tests and exams:

- Using or possessing any unauthorized aid, including a cell phone.
- Looking at someone else's answers.
- Misrepresenting your identity.
- Submitting an altered test for regarding.

Misrepresentation:

- Falsifying institutional documents or grades.
- Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

All suspected cases of academic dishonesty will be investigated following the procedures outlined in the Code of Behaviour on Academic Matters. If you have any questions about what is or is not permitted in this course, please do not hesitate to contact me. If you have questions about appropriate research and citation methods, you are expected to seek out additional information from me or other available campus resources like the College Writing Centers or the Academic Success Centre.

Important Dates

- 10/6 Problem Set 1 due
- 10/20 Term Test (in class)
- 10/21 No tutorial
- 11/3 Last date to drop the course without penalty
- 11/4 Make-up term test (4:00-5:40pm)
- 11/10 Problem Set 2 due
- 11/24 Problem Set 3 due
- TBA Final Exam

Tentative Course Schedule

Date	Week	Lecture	Chapters
9/15	1	What is econometrics?/ Simple OLS	Ch 1, Ch2
9/22	2	Simple OLS	Ch 2
9/29	3	Multiple Regression: Main Idea	Ch 3, Ch6
10/6	4	Multiple Regression: Statistical Properties	Ch 3, Ch6, Ch9.4
10/13	5	Multiple Regression: Statistical Inference	Ch 4
10/20	6	Term test	
10/27	7	Multiple Regression: OLS Asymptotics	Ch 5
11/3	8	Dummy Variables	Ch 7
11/10	9	Endogeneity: instrumental variables	Ch 15
11/17	10	Endogeneity: instrumental variables	Ch 15
11/24	11	Endogeneity: control function	Ch 15
12/1	12	Heteroskedasticity	Ch 8, Ch 9.2