# UNIVERSITY OF TORONTO ECO375H1F APPLIED ECONOMETRICS I Fall, 2013

L0101: Thursday, 10:10-12:00 pm, SS2135. Friday, 10:10-11:00, SS2118 L0201: Thursday, 2:10-4:00 pm, LM162. Friday, 11:10-12:00, LM162

### **Instructor**

Professor Junichi Suzuki

Office: Max Gluskin House, Room 306

Telephone: (416) 978-4417 Email: j.suzuki@utoronto.ca

Office hours: Monday, 12:00-1:00; Friday, 4:00-5:00

# **Teaching Assistants**

Hui Liu and Chen Qu

Office: GE40 (basement), Max Gluskin House

Office hours: Tuesday, 11:00-12:00

### **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/Fifth** 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 third edition or older.

### **Required Statistical Software**

STATA13

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 is supported by the instructor and the TA. Older versions of STATA such as STATA11 or STATA12 are likely to suffice. However, all sample programs distributed throughout the course are based on STATA13. Students who have strong preference to use other software should contact the instructor in the first week of the lecture.

Students can purchase STATA13 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 <a href="http://www.utoronto.ca/ic/software/detail/stata.html">http://www.utoronto.ca/ic/software/detail/stata.html</a> for details.

There are several different types of STATA licenses for students. Buy a six-month license of Small STATA 13 if you do not plan (or are not sure) to take ECO475. If you plan to enroll in ECO475, you may consider buying an annual license of STATA/IC 13. Note that students need to take at least 70% in ECO375 to enroll in ECO475. So buying an annual license of STATA/IC 13 should be done at your own risk. DO NOT purchase a one-year license of Small STATA in any case as Small STATA is not sufficient for ECO475. Perpetual licenses are also available.

# **Marking Scheme**

The final course mark is based on the following:

Three Problem Sets	9% (3% each)
Term Test	41%
Final Exam	50%

### **Policies on Problem Sets**

- All problem sets **must be submitted through the Blackboard**. Neither paper submission nor email submission will be counted. Acceptable file formats are MS Word (.doc/docx), Portable Document Format (.pdf), HTML (.htm), and Plain Text (.txt).
- All problem sets are due at 11:59pm on Wednesday.
- **Both text and STATA log files** need to be submitted. Students will be instructed how to generate a log file during a tutorial session.
- Students are allowed, but not required, to work in pairs.
  - The maximum "group size" is two.
  - If students work together, they will receive the same grade.
  - If serious problems arise between partners, the Instructor will sanction "divorce," if requested by either party. This should be the last resort.
  - Students need to register their pairs by October 25<sup>th</sup> through the Blackboard. Exact procedure will be announced at the Blackboard.
- 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.
  Students working in a pair receive this consideration only when both of the students in a
  pair have medical reasons. 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 Term Test**

- The term test will be held on October 25th from10:20am to 12:00pm at EX100.
- Students who have direct academic conflicts with this term test schedule should notify the Instructor by October 11<sup>th</sup>. A direct academic conflict is overlapping times for required course work. If you have a conflict, send me an e-mail explaining your situation and attach a copy of your ROSI personal timetable.
- Students are expected to write their term tests with an inerasable pen. Neither the Instructor no the TAs accepts a regrading request if a test is written with pencils or erasable pens.
- Students who miss **the term test** for medical reasons may seek special consideration by submitting an **acceptable** 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.
  - o The makeup term test will be held on **November 15<sup>th</sup>**, **4:10-5:00pm**.
  - 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 31st and November 7th.
  - o Note also that the make-up test is AFTER the drop date (November 4th).
- 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 Verification of Student Illness or Injury form. You can find a copy of the form here: http://www.illnessverification.utoronto.ca.

- It must be **original** and completed by a qualified medical doctor (See FAQ section of the link above for more information).
- 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 TAs a **typed** request for regrading problem sets and/or the term test **within one month** from the day of the tutorial in which the TA returns the graded problem sets/the term test. As noted above, the TAs will not regrade a term test when it is written with pencils or erasable pens. In a request, students need to clearly explain why their answers deserve additional points. Regrading may result in a decrease in final marks. 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**

September 20 <sup>th</sup>	Notify the Instructor if you work in a pair
October 2 <sup>nd</sup>	Problem Set 1 due
October 25 <sup>th</sup>	Term Test (10:20am-12pm at EX100)
November 4 <sup>th</sup>	Last date to drop the course without penalty

November 6 <sup>th</sup>	Problem Set 2 due
November 15 <sup>th</sup>	Make-up Term Test (4:00pm-5:40pm)
November 20 <sup>th</sup>	Problem Set 3 due

# **Course Schedule**

Date	Lecture	Chapters
9/12	What is econometrics?	Ch 1, Ch 2
9/19	Simple OLS: Mechanical Property	Ch 2
9/26	Simple OLS: Statistical Property	Ch 2
10/3	Multiple Regression: Mechanical Property	Ch 3, Ch 6
10/10	Multiple Regression: Statistical Property	Ch 3, Ch 6, Ch9.4
10/17	t test	Ch 4
10/24	Term Test Review	
10/31	F test, Consistency	Ch 5, Ch 8
11/7	Asymptotic normality, HRSE, Dummy Variables	Ch 7
11/14	Endogenity: instrumental variables (simple)	Ch 15
11/21	Endogenity: instrumental variables (general)/SEM	Ch 15, 16
11/28	SEM, Review	Ch16