ECO 375 H1F: Applied Econometrics I

Fall 2016, L0201

Department of Economics, University of Toronto

Instructor: Prof. Jonathan Beauchamp
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Lectures: Thursday 2:00pm – 4:00pm, SS 1085
Office hours: Thursday 12:00pm – 1:00pm and 4:00pm – 5:00pm, GE 307

TA (grading): Matthew Tudball
Contact: E-mail: matthew.tudball@mail.utoronto.ca
Office hours: Wednesday 1:00pm – 2:30pm, GE 313

TA (tutorials): Dongyu Mao
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Tutorials: Friday 11:00am – 12:00pm, RW 117
Office hours: Thursday 1:00pm – 2:00pm, GE 40

Course Description

Econometrics combines elements of Economic Theory, Statistics, Probability Theory, and Mathematics. The primary objective of the course is to provide students with a solid theoretical and practical foundation for the interpretation of empirical evidence in economics. The course is built around the statistical foundations, and economic application, of the multiple regression model. Students will gain practical experience working with economic data using statistical software.

Previous Training

Prerequisites: (i) ECO200Y1 or ECO204Y1 or ECO206Y1
(ii) ECO220Y1 (70%) or ECO227Y1 or STA257H1+STA261H1
Recommended: MAT221H1 or MAT223H1 or MAT240H1
Exclusion: ECO374H1, ECO327Y5

The prerequisites are checked by the administration of the Department of Economics and students will be removed from the course list if the prerequisites are not met.

Textbook

"Introductory Econometrics" by J. M. Wooldridge, **4th or 5th or 6th** Edition, South-Western Cengage Learning. The book will be available at the University of Toronto Textbook Store, or can be purchased from various online bookstores.

Course Website

The course website on **Blackboard** is accessible through https://portal.utoronto.ca.
Lecture outlines will be posted in the Blackboard Course Materials. Please bring them with you to class, either printed or on a tablet / laptop. The Blackboard site will also be used to distribute problem sets, the accompanying data, manage class communications, etc.

Software

Stata IC, version 14. Other versions are also admissible, but they may not be supported by the instructor or TA. Students can purchase Stata at discounted prices (see http://sites.utoronto.ca/ic/software/detail/stata.html for details). Buy a six-month license of Stata IC, version 14 if you do not plan to take other courses using STATA such as ECO475.

Evaluation

The final grade is based on the following:

Task	Weight	Due date
Midterm	40 %	October 28, 2016
Two graded problem sets	10% (5% each)	October 12, 2016 November 23, 2016
Final Exam	50 %	Final Exam Period

The **midterm** will be held on Friday October 28 from 10am to 12pm (during the tutorial time) in room EX 320.

- The midterm will have 90 minutes duration.
- Zero grade will be given to students who do not write the test, unless I receive an appropriate note within one week of the missed test explaining why the test was missed.
  - The note must be provided using the University of Toronto medical certificate;
  - Only original notes will be accepted (I will not accept photocopies or emailed certificates);
  - The note must state that on the date of the test, the student was too sick to write the test;
  - I will review each sick note to determine whether there are sufficient grounds for a student to be excused from a test. Part of this review process may include meeting with the student, and/or following up with the physician;
  - It is an academic offence to feign illness to avoid a test.
- If a student has been excused from a test on medical grounds, he or she will be permitted to write a **make-up test** to be held on TBA (the make-up test will likely be held after November 7, the last day to drop courses without penalty).
  - The make-up test will be worth the value of the midterm.
  - Consistent with university policy, there is no "make-up" test for the make-up test. A grade of zero will be applied if the make-up test is requested but missed.
- If students wish to appeal a grade, they must provide a written explanation of why they believe their grade is mistaken, and submit it to the instructor within one week of the midterm being returned to the class.

There will be two **graded problem sets.**

- Graded problem sets must be submitted through the Blackboard in a Portable Document Format (PDF). Students will be instructed how to generate a PDF file during a tutorial session. Neither paper submission nor email submission will be counted. Problem sets are due at 11:59pm on their due date.
- Both text and STATA log files need to be submitted.
- Late problem sets will not be accepted.
- 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.

Additional problem sets will be distributed throughout the semester, and form the basis of the tutorials. They will consist of both theoretical and computer- (data-) based problems. The additional problems sets will not be graded, but serve to prepare students for the graded exams. Students are highly encouraged to complete the additional problem sets.

For accessibility accommodation see http://studentlife.utoronto.ca/accessibility.

Tentative course schedule

Session	Date		Topic	Material
1	Sept.	15	1.Syllabus; 2. Overview of Econometrics; 3. Statistics Review	Ch 1, App A, B, C.1, C.2, C.5, C.6
2		22	4. Simple Regression	Ch 2
3		29	5. Multiple Regression – Estimation	Ch 3
4	Oct.	6	6. Multiple Regression – Inference	Ch 4
		12	*Problem set 1 due*	
5		13	7. Multiple Regression – Further Issues	Ch 6
6		20	8. Multiple Regression – Qualitative Information 9. Heteroskedasticity	Ch 7 Ch 8
7		27	10. Specification and Data Problems; Review	Ch 9
		28	*Midterm*	
8	Nov.	3	11. Instrumental Variables	Ch 15
		7	*Last day to drop the course without penalty*	
9		10	12. 2SLS 13. Simultaneous Equations	Ch 15 Ch 16
10		17	14. Endogeneity in Applications	Slides
		23	*Problem set 2 due*	
11		24	15. Asymptotic Analysis	Ch 5, App C.3
12	Dec.	1	15. Asymptotic Analysis; Review	Ch 5
	Exam period		*Final exam*	