

# ECO 375 H1S: Applied Econometrics I

Winter 2016, L0101

Department of Economics, University of Toronto

**Instructor:** Prof. Martin Burda  
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**Lectures:** Thursday 2:00 pm – 4:00 pm, GB 119  
**Office hours:** Thursday 11:00 am – 1:00 pm, GE 234

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**Tutorials:** Friday 11:00 am – 12:00 pm, GB 119  
**Office hours:** TBA

## 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 (2009) or 5th (2012) 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 up 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.  
A **front-cover page** containing basic course information and link to the Blackboard course website is at <http://www.economics.utoronto.ca/mburda/teaching/ECO375-winter-2016/>

## Software

Stata IC, version 13 or 14. Other versions are also admissible, but they may not be supported by the instructor or TA.

## Evaluation

The final grade is based on the following:

Task	Weight	Due date
Midterm	40 %	March 4, 2016
Short Written Assignment	10 %	April 8, 2016
Final Exam	50 %	Final Exam Period

The **midterm** will be held during the tutorial time.

- The midterm will have 50 minutes duration, short-answer questions.
- Zero grade will be given to students who do not write the test, unless an appropriate note is received 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;
  - The note must state that on the date of the test, the student was too sick to write the test.
  - 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 Thursday, March 10, at 11:00 am in GE 234.
  - 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. 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.

**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 problems sets will not be graded, but serve to prepare students for the graded exams.

The **Short Written Assignment (SWA)** will have a similar format as the problem sets, but will give students the opportunity to work on a graded computer-based set of exercises. The SWA will be handed out approximately two weeks prior to the completion deadline.

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

## Planned Coverage

Week	Date		Topic	Material
1	Jan	14	1.Syllabus; 2. Overview of Econometrics; 3. Statistics Review	Ch 1, App A, B, C.1, C.2, C.5, C.6
2		21	4. Simple Regression	Ch 2
3		28	5. Multiple Regression – Estimation	Ch 3
4	Feb	4	6. Multiple Regression – Inference	Ch 4
5		11	7. Multiple Regression – Asymptotics	Ch 5, App C.3
		18	<i>Reading week – University closed</i>	
6		25	7. Multiple Regression – Asymptotics	Ch 5
7	March	3	Review Session	
8		10	8. Multiple Regression – Further Issues	Ch 6
9		17	9. Multiple Regression – Qualitative Information 10. Heteroskedasticity	Ch 7 Ch 8
10		24	11. Instrumental Variables; 12. 2SLS	Ch 15
11		31	13. Simultaneous Equations	Ch 16
12	April	7	14. Bayesian Analysis; Review Session	slides
	<i>Exam period</i>		<i>Final exam</i>	