

Economics 615 (Econometrics I)

Instructor: Trevor Tombe
Phone: +1 (403) 220-8068
Email: ttombe@ucalgary.ca

Lecture Location: SS 423
Lecture Days/Time: TR 12:30-13:45

Office: SS426
Office Hours: By appointment

Fall 2016

Course Description and Learning Outcomes

Provides a foundation of econometric theory and methods relevant for empirical work in economics. Students will learn how to estimate a general class of parametric models or semiparametric models, and how to conduct testing and inference given the data. Presents classical estimation and inference procedures, including linear regression, instrumental variables, discrete choice models, and a variety of more recent techniques including difference-in-differences and regression discontinuity.

Prerequisites/corequisites

n/a

Required and Recommended Textbook(s):

The first book is intended as the main reading for the course. Although in the outline I will refer to entire chapters of the textbook, sometimes you will be required to read only portions of each chapter, the selection of which will be made clear during the respective class. The second and third books listed are extremely helpful explanations supplementary material:

Cameron and Trivedi. *Microeconometrics: Methods and Applications* (Cambridge University Press, 2005)

Angrist and Pischke. *Mostly Harmless Econometrics* (Princeton University Press, 2008)

Angrist and Pischke. *Mastering 'Metrics: The Path from Cause to Effect* (Princeton University Press, 2014)

In addition, we will occasionally discuss in class research papers. These papers are marked with one asterisk in the list below, which means that they are supplemental materials. You can be tested for the portion of these readings that is included in the lecture slides. The list may change throughout the term, in which case I will make an announcement.

Reserved Readings: All three of the above paper are on reserve at the library.

Desire2Learn: This course will make use of the Desire2Learn (D2L) platform. Students who are registered in the course can log on at <http://d2l.ucalgary.ca> through their student centre. Please note that D2L features a class e-mail list that may be used to distribute course-related information. These E-mails go to your University of Calgary e-mail addresses only.

Course Outline:

1. Linear Models

Ordinary Least Squares, Weighted Least Squares, Median and Quantile Regression, Model Misspecification, Instrumental Variables, CT Chapter 4 and MHE Chapter 3

2. Classical Hypothesis Testing

Hypothesis testing for inference, CT Chapter 7

Specification tests and model selection, CT Chapter 8

3. Instrumental Variables

CT, Chapter 4

MHE, Chapter 3

4. Discrete Choice Models

Binary Outcome Models: Logit, Probit, CT Chapter 14

Multinomial Models: Multinomial Logit, Nested Logit, Multinomial Probit, Ordered Choice Model, CT Chapter 15

*Boskin, Michael J, 1974. A Conditional Logit Model of Occupational Choice. *Journal of Political Economy*, *University of Chicago Press*, vol. 82(2),

Numerical Maximization, CT Chapter 16

5. Other Methods for Causal Inference

Time permitted, we will cover difference in differences and regression discontinuity designs.

Grade Determination and Final Examination Details:

- Two Midterms, 15% each
- Four Home_Assignments_and Class Participation, 20%
 - *Students may work on home assignments in groups of up to three people, but they need to hand in individual copies of the solutions. Students are strongly encouraged to work on the assignments and to understand the solutions, as this will undoubtedly help in test preparation. Midterms and Finals are usually based on problem solving techniques developed in class and in the homework assignments.*
- Final_Examination, 50%

Department of Economics Criteria for Letter Grades. Economics professors use the following criteria when assigning letter grades:

Grade	Grade Point Value	Description	Grade	Grade Point Value	Description
A+	4.00	Outstanding	C+	2.30	All grades below "B-" are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements. Individual programs may require a higher passing grade.
A	4.00	Excellent-superior performance, showing-comprehensive understanding of subject matter	C	2.00	
A-	3.70	Very good performance	C-	1.70	
B+	3.30	Good performance	D+	1.00	
B	3.00	Satisfactory performance	D	1.00	
B-	2.70	Minimum pass for students in the Faculty of Graduate Studies	F	0	

Grading Scale

A+	95 – 100	B	73 – 76	C-	60 – 62
A	85 – 94	B-	70 – 72	D+	56 – 59
A-	80 – 84	C+	67 – 69	D	50 – 55
B+	77 – 79	C	63 – 66	F	0 – 49

A passing grade on any particular component of the course is not required for a student to pass the course as a whole.

There will be a department scheduled final examination, held in a classroom, lasting 2 hours. Non-programmable calculators **WILL** be allowed during the writing of tests or final examinations.

Tests and exams **WILL** involve multiple choice questions.

Reappraisal of Grades

For reappraisal of graded term work, see Calendar I.2
<http://www.ucalgary.ca/pubs/calendar/current/i-2.html>

For reappraisal of final grade, see Calendar I.3
<http://www.ucalgary.ca/pubs/calendar/current/i-3.html>

A student who feels that a piece of graded term work (e.g., term paper, essay, or test) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor

within 15 days of being notified about the mark or of the item's return to the class; no reappraisal of term work is permitted after the 15 days. If not satisfied, the student shall immediately take the matter to the Head of the department offering the course, who will arrange for a reassessment of the work within the next 15 days. The reappraisal of term work may cause the grade to be raised, lowered, or to remain the same. If the student is not satisfied with the decision and wishes to appeal, the student shall address a letter of appeal to the Dean of the faculty offering the course within 15 days of the unfavorable decision. In the letter, the student must clearly and fully state the decision being appealed, the grounds for appeal, and the remedies being sought, along with any special circumstances that warrant an appeal of the reappraisal. The student should include as much written documentation as possible.

Plagiarism and Other Academic Misconduct

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. Consequently, plagiarism or cheating on any assignment is regarded as an extremely serious academic offense. Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Students should examine sections of the University Calendar that present a Statement of Intellectual honesty and definitions and penalties associated with Plagiarism/Cheating/Other Academic Misconduct, <http://www.ucalgary.ca/pubs/calendar/current/k-2.html>

Academic Accommodation

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, Visit www.ucalgary.ca/access/.

Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at <http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf>

Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than 14 days after the start of this course.

Absence from a Test/Exam

THERE WILL BE NO MAKEUP OR DEFERRED QUIZZES under any circumstances, nor may the quizzes be written early. Students unable to write the quizzes because of documented illness, family emergency, religious observance, or university-sanctioned event will have the weight shifted to the final examination; otherwise a grade of zero will be assigned. If a student cannot write their final exam on the date assigned by the Department, they need to arrange for a deferred exam with the department.

Important Dates

Please check: <http://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html>

THERE WILL BE NO MAKEUP OR DEFERRED QUIZZES under any circumstances, nor may the quizzes be written early. Students unable to write the quizzes because of documented illness, family emergency, religious observance, or university-sanctioned event will have the weight shifted to the final examination; otherwise a grade of zero will be assigned. If a student cannot write their final exam on the date assigned by the Department, they need to arrange for a deferred exam with the department.

Faculty of Grad Studies website: <http://grad.ucalgary.ca/home>

Graduate Students Association: <http://gsa.ucalgary.ca/>

Professional Development for Grad Students

Workshops and resources can be found at <http://www.ucalgary.ca/mygradskills/>

Economics Graduate Association: <http://econ.ucalgary.ca/ega/>

Evacuation Assembly Point

In case of an emergency evacuation during class, students must gather at the designated assembly point nearest to the classroom. The list of assembly points is found at www.ucalgary.ca/emergencyplan/assemblypoints

Please check this website and note the nearest assembly point for this course

Safewalk

The safewalk program provides volunteers to walk students safely to their destination anywhere on campus. This service is free and available 24 hrs/day, 365 days a year.

Call 403-220-5333