



## Department of Economics Course Outline

		<b>Term:</b>	Winter 2013
<b>Course:</b>	Economics 497 [Econometrics II]	<b>Section:</b>	01
<b>Time:</b>	MWF 14:00-14:50	<b>Place:</b>	SS 113 (subject to change)
<b>Instructor:</b>	Arvind Magesan		
<b>Office:</b>	SS 430	<b>Telephone:</b>	220-5276
<b>Office Hours:</b>	TBA	<b>E-mail:</b>	anmagesa@ucalgary.ca

### Textbook(s):

Angrist and Pischke, *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton University Press.

### Book(s) on Reserve:

Wooldridge, *Introductory Econometrics: A Modern Approach*, South-Western.

Hohn, *Elementary Matrix Algebra*, Dover.

Stock and Watson, *Introduction to Econometrics*, Addison-Wesley.

### Course Outline:

The purpose of this course is to introduce students to the fundamental issue of empirical economics: identifying and estimating causal effects. At the heart of any work in empirical economics is a simple question such as: do small class sizes cause students to perform better? Does increasing a country's income cause it to be more democratic? Does bigger equipment cause more injuries in hockey? Does increasing the minimum wage cause unemployment to increase? Do good looking workers earn more than their peers? While we would ideally run a controlled experiment to answer these questions, this is often not possible for questions that an economist is interested in. As such, to answer the questions we want to answer we need to use special methods and techniques. In this course we will develop and study these techniques as economists have used them to answer the questions they are interested in.

The course follows the textbook quite closely. Specifically, we will cover the following topics.

1. The Experimental Ideal (CH. 2)
2. The Simple Linear Model (CH. 3)

.../2

3. Instrumental Variables (CH. 4)
4. Panel Data: Fixed effects and Differences in Differences (CH. 5)
5. Regression Discontinuity Design (CH. 6)
6. Quantile Regression (CH. 7)
7. Additional Topics (Time Permitting)

### **Student Preparation:**

Econ 497 starts at a level that assumes familiarity with the material covered in Econ 495 and Stats 213, including proficiency at mathematical statistics and some calculus. We will make use of matrix algebra. While we review key results in class, students may find a review using econometric textbook appendices useful. Students with weak math backgrounds will especially benefit by taking the recommended math courses.

The applied component to this course requires the use STATA software. Students are required to use STATA software on assignments, and should expect to be tested on basic coding and output. Computers in the Tri-Faculty computer lab (SS018) are equipped with STATA.

### **Grade Determination and Final Examination Details:**

Grades will be determined as follows:

Four Assignments– 30%

Midterm Exam (in class on February 15) – 30%

Final Exam – 40%

Tests and final exams are marked on a numerical (percentage) basis, then converted to letter grades. The course grade is then calculated using the weights indicated above. As a guide to determining standing, these letter grade equivalences will generally apply:

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.

Non-programmable calculators will be allowed during the writing of tests or final examinations.

Students who miss an exam will be permitted to take it at a later date provided that the relevant documentation (i.e., medical note) is provided to the instructor within 24 hours of the missed exam.

There will be a Registrar scheduled final examination, lasting **2** hours. The final exam will be comprehensive. .../3

Tests and exams will not involve multiple choice questions.

Students' Union Vice-President Academic:

Kenya-Jade Pinto

Phone: 220-3911

E-mail [suypaca@ucalgary.ca](mailto:suypaca@ucalgary.ca)

Students' Union Faculty Representative (Arts)

Phone: 220-3913 Office: MSC 251

E-mail [arts1@su.ucalgary.ca](mailto:arts1@su.ucalgary.ca), [arts2@su.ucalgary.ca](mailto:arts2@su.ucalgary.ca), [arts3@su.ucalgary.ca](mailto:arts3@su.ucalgary.ca), [arts4@su.ucalgary.ca](mailto:arts4@su.ucalgary.ca)

Society of Undergraduates in Economics (S.U.E.):

[www.ucalgary.ca/sue](http://www.ucalgary.ca/sue)

Society of Undergraduates in Economics is a student run organization whose main purpose is to assist undergraduate economics students succeed both academically and socially at the University of Calgary. Services include access to the exam bank, career partnerships with the Career Centre through hosting industry nights and information sessions, recognizing achievements in teaching, and organizing social events for members. Join now by contacting [sue@ucalgary.ca](mailto:sue@ucalgary.ca).

#### *Faculty of Arts Program Advising and Student Information Resources*

- Have a question, but not sure where to start? The new Faculty of Arts Program Information Centre (PIC) is your information resource for everything in Arts! Drop in at SS110, call us at 403-220-3580 or email us at [artsads@ucalgary.ca](mailto:artsads@ucalgary.ca). You can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate> which has detailed information on common academic concerns.
- For program planning and advice, contact the Student Success Centre (formerly the Undergraduate programs Office) at (403) 220-5881 or visit them in their new space on the 3<sup>rd</sup> Floor of the Taylor Family Digital Library.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at (403) 210-ROCK [7625] or visit them at the MacKimmie Library Block.
- Online writing resources are available at <http://ucalgary.ca/ssc/writing-support/online-writing-resources>

.../4

**Notes:**

- Students seeking reappraisal of a piece of graded term work (term paper, essay, etc.) should discuss their work with the Instructor within fifteen days of the work being returned to the class.
- It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 403-220-8237. 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 fourteen (14) days after the start of this course.

Safewalk / Campus Security: 403-220-5333  
Emergency Assembly Point –Professional Faculties Food Court  
\*\*\*\*\*