

School of Economics and Finance

ECON 303
APPLIED ECONOMETRICS

Trimester 2 2012

COURSE OUTLINE

Names and Contact Details

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Office hours

Thursdays: 10-12 (or by appointment)

Trimester Dates

Teaching Period: Monday 16 July – Friday 19 October

Study Period: Monday 22 October – Thursday 25 October (Monday 22 October is a public holiday, Labour Day)

Examination Period: Friday 26 October – Saturday 17 November (inclusive)

Withdrawal from Course

1. Your fees will be refunded if you withdraw from this course on or before **Friday 27 July 2012**.
2. The standard last date for withdrawal from this course is 28 September 2012. After this date, students forced to withdraw by circumstances beyond their control must apply for permission on an '*Application for Associate Dean's Permission to Withdraw Late*' including supporting documentation

The application form is available from either of the Faculty's Student Customer Service Desks.

Class Times and Room Numbers

Lectures

TUESDAY	12.40-13.30	Government Building, Pipitea, G04
WEDNESDAY	12.40-13.30	Government Building, Pipitea, G04

Tutorials

Approximately weekly tutorials (8 in total) will be held in a computer lab (RWW 302). The tutorial time is scheduled for **Thursday 10:30 – 11:20am**: if this time is unsuitable, an attempt to find a suitable alternative will be made in the first lecture.

Course Learning Objectives

- C1 be able to interpret the results from common econometric estimation techniques
- C2 articulate the main lines of argument in a number of contemporary published econometric studies
- C3 use econometric software to conduct applied econometric analysis
- C4 recognise and address some common problems with economic data sets

Course Content

Applied econometrics involves *how to do econometrics* and *how to evaluate the econometric research*. Sound applied econometric work can involve the selection and use of suitable data to analyse a question; designing and constructing an econometric model for the particular purpose at hand; and/or the estimation, testing and use of econometric models for description, hypothesis testing and/or prediction purposes. Regression models provide the basis for most econometric modeling and analysis, and so will be the basic building block for this course.

This course will cover a variety of applied econometrics topics from *the program evaluation* and *microeconometrics* literature. Special emphasis will be given to the identification of causal effects. Since the ultimate goal is to provide actual estimation and evaluation experience, a significant component of the class and assignment material will involve econometric analysis of data using computer software R (<http://cran.r-project.org/>), which is freeware.

Course Delivery

The course delivery section below lists required journal articles to be read. Students will be expected to read and study the specific paper(s) listed for each topic. The data from each study will be reanalysed in tutorials and problem set exercises.

Readings

Textbook

There is no assigned text for this course. However, the following textbooks will be used as a reference for all topics taught in the course:

Angrist, Joshua D., and Jorn-Steffen Pischke, *Mostly Harmless Econometrics: An Empiricist's Companion*, Princeton University Press, 2009.

Ashley, Richard A., *Fundamentals of Applied Econometrics*, Wiley, 2012

Verbeek, Marno, *A Guide to Modern Econometrics*, Wiley, 2000

The topics for the 2012 course are as follows:

Week	Day	Topic	Reading
Part I Continuous dependent variables			
1	Tue	<i>Identifying causal effects in social sciences</i>	Angrist, D.A., Pischke, J.-S. (2010). "The Credibility Revolution in Empirical Economics: How Better Research Design is Taking the Con out of Econometrics", <i>Journal of Economic Perspectives</i> , 24(2), 3-30. Lalonde, Robert J. (1986), "Evaluating the Econometric Evaluations of Training Programs with Experimental Data", <i>American Economic Review</i> , 76 (4), pp. 604-620.
	Wed	Formalisation of the Identification Problem	Angrist and Pischke (2009): Chapter 3 (p. 27-68)
2	Tue	<i>Instrumental variables approaches</i>	Angrist and Pischke (2009): Chapter 4 (p. 114-146) Ashley (2012) Chapter 12; pp. 303-330.
	Wed	An application of IV	Card, David (1993), "Using Geographic Variation in College Proximity to Estimate the Return to Schooling", National Bureau of Economic Research (NBER), Working Paper No. 4483. (Published In L.N. Christofides, E.K. Grant, and R. Swidinsky, editors, <i>Aspects of Labor Market Behaviour: Essays in Honour of John Vanderkamp</i> . Toronto: University of Toronto Press, 1995)
	Thu	Tutorial 1	Lalonde (1986)
3	Tue	<i>Potential problems with IV</i>	Angrist and Pischke (2009): Chapter 4 (p. 114-146) Bound, J., Jaeger, D., Baker, R. (1995). "Problems with Instrumental Variables Estimation when the Correlation between the Instruments and the Endogenous Variables is Weak". <i>Journal of the American Statistical Association</i> 90, 443-450.
	Wed	IV and the LATE interpretation	Lindeboom, M., Llena-Nozal, A., van der Klaauw. B. (2009). Parental education and child health: Evidence from a schooling reform, <i>Journal of Health Economics</i> , 28(1): 109-131.
	Thu	Tutorial 2	Lalonde (1986)
4	Tue	<i>Fixed effects estimation</i>	Angrist and Pischke (2009) Chapter 5, p. 221-243
	Wed	An Application of fixed effects methods	Ashenfelter, O., Krueger, A. (1994), "Estimates of the Economic Return to Schooling from a New Sample of Twins", <i>American Economic Review</i> 84(5), 1157-1173
	Thu	Tutorial 3	Card (1993)
5	Tue	<i>Diff-in-Diff methods</i>	Angrist and Pischke (2009) Chapter 5, p. 221-243
	Wed	An application of Diff-in-Diff methods	Card, David, and Alan Krueger (1994), "Minimum Wages and Employment: A Case Study of the Fast-food Industry in New Jersey and Pennsylvania", <i>American Economic Review</i> , 84 (4), 772-793.
	Thu	Tutorial 4	Card and Krueger (1994)
6	Tue	<i>How to apply in practice several of the above methods</i>	Cawley, J. (2004). The causal effect of obesity on wages, <i>Journal of Human Resources</i> , Vol. XXXIX, 451-474.
	Wed	Review session	
Part II Limited dependent variables			
7	Tue	<i>Binary choice models</i>	Verbeek (2012) Chapter 7, p. 177-189
	Wed	Binary choice application	Effect of SES on Smoking (own example)
8	Tue	<i>Bivariate choice models</i>	Angrist and Pischke (2009) Chapter 4, p. 198 (bottom)-205. Scott et al. (2009). "The effect of a financial incentive

			program on the quality of care in diabetes management”, <i>Health Economics</i> , 18, 9 (2009), pp. 1091-1108
	Wed	Bivariate choice application	Carrasco, R. (2001). Binary Choice with Binary Endogenous Regressors in Panel Data: Estimating the Effect of Fertility on Female Labor Participation. <i>Journal of Business and Economic Statistics</i> 19(4), 385-394. (Ignore panel data estimator)
	Thu	Tutorial 5	Carrasco (2001)
9	Tue	<i>Limited dependent variables: Censored Tobit</i>	Verbeek (2000) Chapter 7, pp. 197-207 Angrist and Pischke (2009) Chapter 4, p. 94-107.
	Wed	Application	Meleneberg, B. and Van Soest, A. (1995). Parametric and semi-parametric modelling of vacation expenditures. <i>Journal of Applied Econometrics</i> 11, 59-76
	Thu	Tutorial 6	Rand Health Insurance Experiment Data (Own example)
10	Tue	<i>Limited dependent variables: Sample selection</i>	Verbeek (2000) Chapter 7, pp. 207-220
	Wed	Application	Vella, F. (1998). “Estimating Models with Sample Selection Bias: A Survey”, <i>Journal of Human Resources</i> 33, 439-454. (Ignore panel data estimators)
	Thu	Tutorial 7	Rand Health Insurance Experiment Data (Own example)
11	Tue	<i>Count data models: Poisson and Negative binomial</i>	Jones, A. (2001). <i>Applied Econometrics for Health Economists - A Practical Guide</i> . Office of Health Economics. P. 48-61;
	Wed	Count data application I	Winkelmann, R. (2004). “Health Care Reform and the Number of Doctor Visits-An Econometric Analysis”; <i>Journal of Applied Econometrics</i> 19, 455-472.
	Thu	Tutorial 8	Winkelmann (2004)
12	Tue	<i>Count data models: zero-inflated and latent class models + application</i>	Jones, A. (2001). <i>Applied Econometrics for Health Economists - A Practical Guide</i> . Office of Health Economics. p. 48-61; Deb, P. and P.K. Trivedi (2002) "The Structure of Demand for Medical Care: Latent Class versus Two-Part Models", <i>Journal of Health Economics</i> 21, 601-625.
	Wed	Review session	

Expected Workload

ECON 303 is a 15-point course, and on the basis of VUW having designated one point = 10 hours work, expected work load would total 150 hours. If that workload were spread over 15 weeks, hours expected would average around 10 hours per week. This would involve attending classes, plus reading, studying and completing assignments. The 10 hours would of course vary for individual students, depending on the student’s previous knowledge and understanding, and the final grade to which the student aspires.

Assessment Requirements

(Including the associated learning objectives)

Assignments **25%** (4 at roughly 3 weekly intervals); C1-C4.

Mid-trimester test **25%** (50 minutes, in lecture, **10 September 2012, 15.40-16.30 GBLT3**, covering material from weeks 1–6); C1-C4

Final examination **50%** (2 hours, during the examination period); C1-C4.

Assignments will include both problem solving and computer tasks.

Note: Your assessed work may also be used for quality assurance purposes, such as to assess the level of achievement of learning objectives as required for accreditation and audit purposes. The findings

may be used to inform changes aimed at improving the quality of FCA programmes. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the course.

Examinations

Students who enrol in courses with examinations are obliged to attend an examination at the University at any time during the formal examination period.

The final examination for this course will be scheduled at some time during the period from Friday 26 October – Saturday 17 November (inclusive).

Quality Assurance Note

Your assessed work may also be used for quality assurance purposes, such as to assess the level of achievement of learning objectives as required for accreditation and audit purposes. The findings may be used to inform changes aimed at improving the quality of FCom programmes. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the course.

Penalties

Late submission of assignments will not be accepted unless a deadline is explicitly discussed with and approved by the course coordinator.

Mandatory Course Requirements

Mandatory course requirements will be satisfied if all assessment requirements are completed.

Class Representative

A class representative will be elected in the first class, and that person's name and contact details made available to VUWSA, the Course Coordinator and the class. The class representative provides a communication channel to liaise with the Course Coordinator on behalf of students.

Communication of Additional Information

Additional information or information on changes will be conveyed to students through the VUW Blackboard website.

Use of Turnitin (if applicable)

Student work provided for assessment in this course may be checked for academic integrity by the electronic search engine <http://www.turnitin.com>. Turnitin is an on-line plagiarism prevention tool which compares submitted work with a very large database of existing material. At the discretion of the Head of School, handwritten work may be copy-typed by the School and subject to checking by Turnitin. Turnitin will retain a copy of submitted materials on behalf of the University for detection of future plagiarism, but access to the full text of submissions will not be made available to any other party.

For the following important information follow the links provided:

Academic Integrity and Plagiarism

<http://www.victoria.ac.nz/home/study/plagiarism.aspx>

General University Policies and Statutes

Find key dates, explanations of grades and other useful information at

www.victoria.ac.nz/home/study

Find out about academic progress and restricted enrolment at

<http://www.victoria.ac.nz/home/study/academic-progress.aspx>

The University's statutes and policies are available at www.victoria.ac.nz/home/about/policy,

except qualification statutes, which are available via the Calendar webpage at

<http://www.victoria.ac.nz/home/study/calendar.aspx> (See Section C).

Further information about the University's academic processes can be found on the website of the Assistant Vice-Chancellor (Academic) at

www.victoria.ac.nz/home/about_victoria/avcacademic/default.aspx

AVC (Academic) Website: information including: Conduct, Academic Grievances, Students with Impairments, Student Support

http://www.victoria.ac.nz/home/about_victoria/avcacademic/Publications.aspx

Faculty of Commerce Office

<http://www.victoria.ac.nz/fcom/studenthelp/>

Te Putahi Atawhai

Maori and Pacific Mentoring Programme

<http://www.victoria.ac.nz/tpa/>