

School of Economics and Finance

ECON408 ADVANCED ECONOMETRICS

Trimester One 2009

COURSE OUTLINE

Names and Contact Details

Course coordinator Dr. Pian Chen RH404 Phone: 463-6770 extn: 6770
Email Pian.Chen@vuw.ac.nz
Office Hours: TBA

Trimester Dates

Monday 2 March to Wednesday 1 July 2009

Class Times and Room Numbers

Class times: Tuesday 13:40 to 16:30
Room: Railway West Wing 128 (RWW128)
Midterm exam time One of the days during the 7th week - TBA
Final exam time: Between Friday 12 June to Wednesday 1st July 2009.

Withdrawal dates: Information available via
<http://www.victoria.ac.nz/home/admisenrol/payments/withdrawlsrefunds.aspx>

Course Content

This course focuses on advanced econometric methods for cross-sectional data. It begins with introducing econometric models, types of economic data, and estimation methods. The first six weeks will be devoted to linear regression, linear hypothesis testing, and asymptotic properties of OLS. Nonlinear models, NLS, and Newton-Raphson method will also be introduced. In the second six weeks, MLE, Quasi MLE, GMM, and nonparametric methods will be discussed intensively. We will use GAUSS, a statistical software package, for Monte Carlo simulation and data analysis.

Course Plan

The First Half:
1st week: Introduction to econometric models, data, and estimation methods
2nd week: Linear regression and hypothesis test
3rd week: Asymptotic Theory (Convergence, LLN, CLT)
4th week: Asymptotic properties of OLS
5th week: Nonlinear models and NLS
6th week: Newton-Raphson method and Monte Carlo simulation

Mid-trimester Break: 13 to 25 April

The Second Half:

7th – 8th week: MLE and its asymptotic properties

9th week: Quasi MLE

10th week: Generalized Method of Moments (GMM)

11th week: Nonparametric density estimation and regression

12th week: Review

Course Learning Objectives

By the end of the course students should be able to

- understand advanced econometric methods and asymptotic theorems.
- using Monte Carlo simulation, learn how an econometric method works in an ideal data experiment design;
- using real financial and labour market data, students can learn how to apply advanced econometric tools to gather information for economic policy analyses.

Expected Workload

For students who have fulfilled the normal prerequisites at VUW, about 12 hours per week should be weekly average workload, which includes class times. From the prior experiences, students can reduce workloads substantially by participating in class activities vigorously and not by accumulating them at the end of trimester.

Group Work

Group study and discussion are strongly encouraged. Each student to hand in his or her own assignments.

Readings

Econometric Theory and Methods, by Russell Davidson and James G. MacKinnon, Oxford University Press (New York) in October, 2003 with a 2004 copyright.

Lecture notes and handouts will be available via Blackboard.

Assessment Requirements

There are two examinations. The first is a test, and the second is the final examination. Assessment will be based on the following formula: $0.2 \text{ Assignments} + 0.4 \text{ Test} + 0.4 \text{ Final}$.

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. Examination dates for trimester one: Friday, 12 June to Wednesday, 1 July 2009.

Penalties

Late or no submission of assignments will receive zero score.

Mandatory Course Requirements

Attempting each item of assessment.

Communication of Additional Information

Additional information will be announced via Blackboard.

Faculty of Commerce and Administration Offices

Railway West Wing (RWW) - FCA Student and Academic Services Office

The Faculty's Student and Academic Services Office is located on the ground and first floors of the Railway West Wing. The ground floor counter is the first point of contact for general enquiries and FCA forms. Student Administration Advisers are available to discuss course status and give further advice about FCA qualifications. To check for opening hours call the Student and Academic Services Office on (04) 463 5376.

Easterfield (EA) - FCA/Education/Law Kelburn Office

The Kelburn Campus Office for the Faculties of Commerce and Administration, Education and Law is situated in the Easterfield Building on the ground floor (EA005). This counter is the first point of contact for:

- Duty tutors for student contact and advice.
- Information concerning administrative and academic matters.
- Forms for FCA Student and Academic Services (e.g. application for academic transcripts, requests for degree audit, COP requests).
- Examinations-related information during the examination period.

To check for opening hours call the Student and Academic Services Office on (04) 463 5376.

General University Policies and Statutes

Students should familiarise themselves with the University's policies and statutes, particularly the Assessment Statute, the Personal Courses of Study Statute, the Statute on Student Conduct and any statutes relating to the particular qualifications being studied; see the Victoria University Calendar or go to www.victoria.ac.nz/home/about/policy/students.aspx

For information on the following topics, go to the Faculty's website www.victoria.ac.nz/fca under Important Information for Students:

- Academic Grievances
- Student and Staff Conduct
- Meeting the Needs of Students with Impairments
- Student Support

Academic Integrity and Plagiarism

Academic integrity is about honesty – put simply it means *no cheating*. All members of the University community are responsible for upholding academic integrity, which means staff and students are expected to behave honestly, fairly and with respect for others at all times.

Plagiarism is a form of cheating which undermines academic integrity. The University defines plagiarism as follows:

The presentation of the work of another person or other persons as if it were one's own, whether intended or not. This includes published or unpublished work, material on the Internet and the work of other students or staff.

It is still plagiarism even if you re-structure the material or present it in your own style or words.

Note: including the work of others will not be considered plagiarism as long as the work is acknowledged by appropriate referencing.

Plagiarism is prohibited at Victoria and is not worth the risk. Any enrolled student found guilty of plagiarism will be subject to disciplinary procedures under the Statute on Student Conduct and may be penalised severely. Consequences of being found guilty of plagiarism can include:

- an oral or written warning
- cancellation of your mark for an assessment or a fail grade for the course
- suspension from the course or the University.

Find out more about plagiarism, and how to avoid it, on the University's website:

www.victoria.ac.nz/home/studying/plagiarism.html

Manaaki Pihipihinga Programme

Manaaki Pihipihinga is an academic mentoring programme for undergraduate Māori and Pacific students in the Faculties of Commerce and Administration, and Humanities and Social Sciences. Sessions are held at the Kelburn and Pipitea Campuses in the Mentoring Rooms, 14 Kelburn Parade (back courtyard), Room 109D, and Room 210, Level 2, Railway West Wing. There is also a Pacific Support Coordinator who assists Pacific students by linking them to the services and support they need while studying at Victoria. Another feature of the programme is a support network for Postgraduate students with links to Postgraduate workshops and activities around Campus.

For further information, or to register with the programme, email manaaki-pihipihinga-programme@vuw.ac.nz or phone (04) 463 6015. To contact the Pacific Support Coordinator, email pacific-support-coord@vuw.ac.nz or phone (04) 463 5842.