

School of Economics and Finance

QUAN 301 ECONOMETRICS

Trimester One 2010

COURSE OUTLINE

Names and Contact Details

Dean Hyslop (course coordinator)

RH 310, Tel. 463 6964

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Mohammed Khaled

RH 322, Tel. 463 5787

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Contact with the lecturers is best initiated by e-mail or through making an appointment.

Trimester Dates

Teaching Period: Monday 1st March – Friday 4th June 2010

Study Period: Monday 7th June – Thursday 10th June 2010

Examination Period: Friday 11th June – Wednesday 30th June 2010 (inclusive)

Withdrawal from Courses:

Information available via

Withdrawal dates: Late withdrawals with Associate Dean (Students) permission
(See Section 8: Withdrawals - from the Personal Courses of Study Statute)

<http://policy.vuw.ac.nz/Amphora!~policy.vuw.ac.nz~POLICY~000000001743.pdf>

Withdrawal dates: refunds:

<http://www.victoria.ac.nz/home/admisenrol/payments/withdrawlsrefunds.aspx>

Class Times and Room Numbers

Lecture

Monday, Tuesday, Thursday

12:40 – 1:30 pm

GB G04

Tutorial

A weekly tutorial will be held in a computer lab (RWW 302), beginning in the second week of the trimester. These tutorials will be either on Monday 11:30 am – 12:20 pm, Tuesday 1.40 – 2.30pm, or Thursday 11.30 am – 12.20pm, and determined in the first lecture according to the preferences and constraints of the class.

To access the student computer labs, you will need to set up your username and password with the Student Computer Services (SCS).

Course Content

Econometrics is concerned with the construction, estimation, testing, and use of economic and financial models. Sound applied econometric work requires that careful attention be paid to econometric theory, as well as to the theory on which the empirical model is based and the construction of data. To understand econometrics, a considerable amount of mathematical reasoning and theory is required. But since the ultimate goal is actual estimation and evaluation, hands-on experience with data and econometric software is also required. For the hands-on econometric work, econometric computer software EVIEWS will be used.

Introductory material covered in QUAN 201 will be reviewed and expanded into more advanced level, in terms of both the econometric theory and the level of complexity of the models. Advanced econometric topics may include generalized least squares, instrumental variables methods, stationary time series models, estimation of simultaneous equation systems, non-linear least squares, maximum likelihood estimation, models with panel data, and models with limited dependent variables. Furthermore:

- Matrix algebra specifications will be used. By using matrix algebra, the fundamental results in econometrics can be presented in an elegant, compact, and uncluttered manner.
- Some computer programming will be done in implementing econometric theory. Programming econometric formulas will enhance students' understanding of formulas. Through programming, theoretical results that have not been incorporated as automatic commands in a software package can be implemented in empirical work.

Course Learning Objectives

- C1 will understand and use matrix algebra to specify and derive characteristics of linear regression models
- C2 will understand and use the econometric package EVIEWS to implement econometric theory
- C3 will know how and when to apply Generalised least squares
- C4 will apply time series modelling procedure for stationary time series
- C5 will understand and apply instrumental Variable (IV) estimation
- C6 will understand and use systems of equations
- C7 will use Non-linear Least Squares and Maximum Likelihood Estimation
- C8 will understand and apply binary choice models
- C9 will understand and apply other limited dependent variable models
- C10 Will understand and apply panel data models

Course Delivery

The topics for the 2010 course are organised as follows:

Weeks 1–6: (Dean Hyslop)

- Generalised least squares methods for Heteroscedasticity and Autocorrelation
- Instrumental variables methods
- Stationary times series models
- Systems of equations

Weeks 7–12: (Mohammed Khaled)

- Non-linear least squares and maximum likelihood estimation
- Binary choice models
- Limited dependent variables
- Panel data models

Expected Workload

QUAN 301 is a 24-point course, and on the basis of VUW having designated one point = 10 hours work, expected work load would total 240 hours. If that workload were spread over 12 weeks, hours expected would average around 20 hours per week. This would involve attending classes, plus reading, studying and completing assignments. The 20 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.

Readings

Textbook

Verbeek, M, *A Guide to Modern Econometrics*, 3rd edition, John Wiley & Sons, 2008.

Other References

Griffiths, W E, R C Hill, and G G Judge, *Learning and Practicing Econometrics*, John Wiley & Sons, 1993.

Johnston, J, and J. DiNardo, *Econometric Methods*, 4th edition, McGraw Hill, 1997.

Khaled, M, *Introduction to Modern Econometrics with Applications*, Pearson/Prentice-Hall, 2008.

Wooldridge, J M, *Introductory Econometrics: A Modern Approach*, 3rd edition, Thomson/South-Western, 2006.

Course Web

Selective course material will be available at the VUW Blackboard website.

Assessment Requirements

(Including the associated learning objectives)

Assignments 20% (Four @ 5% each); C1-C10.

Mid-trimester test 20% (weeks 1–5), in lecture Thursday 22nd April, 50 minutes; C1-C6.

Final examination 60% (1/3 weeks 1–6, and 2/3 weeks 7–12), during the examination period, 2 hours; C1-C10.

If you are not able to sit the mid-trimester test for any reason, then your final examination will be weighted 80% towards the final grade. Assignments may 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

Note: 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 examination period from **Friday 11th June – Wednesday 30th June 2010**.

Penalties

Late submission of assignments will not be accepted without prior approval.

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 will be 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.

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

<http://www.victoria.ac.nz/home/about/policy>

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 and Administration Offices

<http://www.victoria.ac.nz/fca/studenthelp/Contactus.aspx>

Manaaki Pihipihinga Programme

http://www.victoria.ac.nz/st_services/mentoring/