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School of Economics and Finance  
QUAN 201 Introduction to Econometrics  
Trimester 1, 2005

## COURSE OUTLINE

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### Contact Details

The lectures will be given by:

Dr. Chirok Han RH 318 Ext. 6143 [chirok.han@vuw.ac.nz](mailto:chirok.han@vuw.ac.nz)  
Dr. Jin Seo Cho RH 303 Ext. 6149 [jinseo.cho@vuw.ac.nz](mailto:jinseo.cho@vuw.ac.nz)

Dr. Chirok Han is also the **course coordinator**; please do not hesitate to see him to express any concerns about lectures and/or tutorials. We will do our best to alleviate any problems.

### Class Times and Room Numbers

Lectures are to be held on:

Tuesday 9:30–10:20 am RHLT2  
Friday 9:30–11:20 am RHLT2

Students will be allocated to one of the two-hour **tutorials** in RW202 (computer lab) that begins in the second week of the trimester. Days and times are found on the last page of the course outline. Students will be assigned to a tutorial on the basis of their preferences indicated during the first lecture session.

The final exam will be held at the place and the time, in the period of 30 May–18 June, to be announced later by the university authority.

### Course Objectives

The course is designed to give students experience of using statistical methods important in economics and other business subjects, and to build skill and confidence in the use of those methods. It provides skills in regression essential for understanding much of the literature of economics, finance, and empirical studies in other areas of business.

We begin with an introduction to the nature of empirical studies in economics and business. The simple regression and multiple regression models are then treated in depth and in a range of applications. Careful attention is given to the interpretations of regression results and hypothesis testings.

By the end of the course students should be able to use regression models in many different applications, and to critically examine reported regression results in empirical research in economics and other business studies. They will be able to identify and deal with a number of statistical problems in the analysis of time series and cross-section data, and will have experience of a range of other important statistical methods.

## Course Content

The following outline gives the topics which we expect to cover.

W	D	Topics	Tutorial
1	T	Some mathematics: linear, quadratic and log functions	
	F	Interpretations of coefficients of various functions	
2	T	Review of Probability and Statistics (Ch 2)	Basic descriptive statistics
	F	Simple Linear Regression (3.1, 3.2)	
3	T	Properties of Estimators (3.3)	Simple regression and interpretation
	F	Continued, Goodness of Fit (3.4)	
4	T	Tests of Hypotheses (3.5)	Properties of OLS and goodness of fit
	F	Continued	
5	T	Scaling and Units of Measurement (3.6)	Hypothesis testing (simple regression)
	F	No class (Easter break)	
Mid-trimester break (28 Mar–10 Apr) Use it to prepare Mid-trimester test.			
6	T	Mid-trimester test: In class 9:30–10:20am (Covers week 1–5)	Matter of scaling
	F	Multiple Regression Models: Models and Estimation (4.1)	
7	T	Goodness of Fit (4.2)	Multiple regression and interpretation
	F	Testing Hypotheses (4.4)	
8	T	Specification Errors (4.5)	Hypothesis testing (multiple regression)
	F	Multicollinearity (Ch 5), Functional Forms (Ch 6)	
9	T	Dummy Independent Variables (Ch 7)	Omitted variables and multicollinearity
	F	Heteroscedasticity (Ch 8)	
10	T	Continued	Heteroscedasticity
	F	Autocorrelation (Ch 9)	
11	T	Continued	Autocorrelation
	F	Distributed Lag Models (Ch 10)	
12	T	Forecasting (Ch 11)	Distributed lag models, forecasting
	F	Binary Choice Models (12.1–12.3)	

Dr. Chirok Han will lecture weeks 1–8 and Dr. Jin Seo Cho weeks 9–12.

## Textbook

The textbook is

R. Ramanathan, *Introductory Econometrics with Applications, 5th Edition*, Harcourt College Publishers, 2002.

Other useful reference is *Introductory Econometrics: A Modern Approach, 2nd Edition*, by J. M. Wooldridge, Thomson/South-Western, 2003.

## Computing

For statistical computing, the primary program we used is *EViews*. Access to the computing laboratories is managed by the Student Computing Services (SCS). Access is unrestricted during weekdays (if the labs are not booked!), and available upon using student ID cards at weekends and after 6pm on weeknights. **You will need to enter your SCS username and password to log on. Make sure that these are operational before the tutorials begin.** For

any help in this matter, go to a SCS helpdesk: Rankine Brown building (level 2) or Murphy building (level 2) if at Kelburn Campus, or Government Building (level 1 Law library) if at Pipitea Campus.

Laser printing is available in all labs; check with a SCS helpdesk for the payment procedure to be followed. High Density 3.5" IBM formatted diskettes can be purchased from the Student Notes Centre, the Victoria Book Centre, or from the slot-machines (if available).

Report any hardware or printing problems to a SCS helpdesk; they are the ones who can attend to these problems.

### **Assessment and Terms**

The marks which may be scored through the trimester are:

Homework Assignments	20	
Mid-trimester test	30	On Tuesday 12 April at 9:30–10:20am in class
Final exam (2 hours)	<u>50</u>	Date to be set, in the exam period, 30 May–18 June
Total	100	

Any illness or adverse personal circumstances must be notified to the course coordinator—in writing—before an assessment, so that alternative arrangements can be made for the item of assessment concerned.

The mandatory requirements ('terms' in short) for this course are:

1. Attendance in at least 8 tutorials,
2. Taking the mid-trimester test, and
3. Taking the final examination.

### **GENERAL UNIVERSITY POLICIES AND STATUTES**

Students should familiarise themselves with the University's policies and statutes, particularly those regarding assessment and course of study requirements, and formal academic grievance procedures.

#### **Student Conduct and Staff Conduct**

The Statute on Student Conduct together with the Policy on Staff Conduct ensure that members of the University community are able to work, learn, study and participate in the academic and social aspects of the University's life in an atmosphere of safety and respect. The Statute on Student Conduct contains information on what conduct is prohibited and what steps can be taken if there is a complaint. For queries about complaint procedures under the Statute on Student Conduct, contact the Facilitator and Disputes Advisor. This Statute is available in the Faculty Student Administration Office or on the website at:

<http://www.vuw.ac.nz/policy/StudentConduct>

The policy on Staff Conduct can be found on the VUW website at:

<http://www.vuw.ac.nz/policy/StaffConduct>

#### **Academic Grievances**

If you have any academic problems with your course you should talk to the tutor or lecturer concerned or, if you are not satisfied with the result of that meeting, see the Head of School or the Associate Dean (Students) of your Faculty. Class representatives are available to assist you with this process. If, after trying the above channels, you are still unsatisfied, formal grievance procedures can be invoked. These are set out in the Academic Grievances Statute which is published on the VUW website:

<http://www.vuw.ac.nz/policy/AcademicGrievances>.

#### **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. Plagiarism is **prohibited** at Victoria.

The university defines plagiarism as follows:

Plagiarism is presenting someone else's work as if it were your own, whether you mean to or not.

*'Someone else's work' means anything that is not your own idea, even if it is presented in your own style. It includes material from books, journals or any other printed source, the work of other students or staff, information from the Internet, software programmes and other electronic material, designs and ideas. It also includes the organization or structuring of any such material.*

***Plagiarism is not worth the risk.***

Any enrolled student found guilty of plagiarism will be subject to disciplinary procedures under the Statute on Student Conduct ([www.vuw.ac.nz/policy/studentconduct](http://www.vuw.ac.nz/policy/studentconduct)) and may be penalized severely. Consequences of being found guilty of plagiarism can include:

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

*Find out more about plagiarism and how to avoid it, on the University's website at:*  
[www.vuw.ac.nz/home/studying/plagiarism.html](http://www.vuw.ac.nz/home/studying/plagiarism.html).

## **Students with Disabilities**

The University has a policy of reasonable accommodation of the needs of students with disabilities. The policy aims to give students with disabilities an equal opportunity with all other students to demonstrate their abilities. If you have a disability, impairment or chronic medical condition (temporary, permanent or recurring) that may impact on your ability to participate, learn and/or achieve in lectures and tutorials or in meeting the course requirements, then please contact the Course Coordinator as early in the course as possible. Alternatively you may wish to approach a Student Adviser from Disability Support Services to confidentially discuss your individual needs and the options and support that are available. Disability Support Services are located on Level 1, Robert Stout Building, or phoning 463-6070, email [disability@vuw.ac.nz](mailto:disability@vuw.ac.nz). The name of your School's Disability Liaison Person can be obtained from the Administrative Assistant or the School Prospectus.

## **Student Support**

Staff at Victoria want students' learning experiences at the University to be positive. If your academic progress is causing you concern, please contact the relevant Course Coordinator, or Associate Dean who will either help you directly or put you in contact with someone who can.

The Student Service Group is also available to provide a variety of support and services. Find out more at [www.vuw.ac.nz/st\\_services/](http://www.vuw.ac.nz/st_services/) or email [student-services@vuw.ac.nz](mailto:student-services@vuw.ac.nz).

VUWSA employs two Education Coordinators who deal with academic problems and provide support, advice and advocacy services, as well as organising class representatives and faculty delegates. The Education Office is located on the ground floor, Student Union Building, phone 463 6983 or 463 6984, email [education@vuwsa.org.nz](mailto:education@vuwsa.org.nz).

The tutorial times and rooms are

Weekday	Time	Room
Tuesday	12.40–14.30	RW202
Wednesday	10.30–12.20	RW202
Wednesday	12.40–14.30	RW202
Thursday	10.30–12.20	RW202
Thursday	12.40–14.30	RW202
Friday	12.40–14.30	RW202

Based upon the number of students, some of the tutorials may be cancelled. Note that there will be no tutorial on Friday 25 March 2005 (Easter holiday). Students allocated to the Friday session are encouraged to attend another tutorial available in the same week.

Rank your tutorial time preference on the bottom portion of this sheet. Mark a ‘×’ if you have a clash. If you have no specific preferences, leave the corresponding cells blank. Tear it off and hand it in.

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First name: \_\_\_\_\_ Surname: \_\_\_\_\_ ID: \_\_\_\_\_

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