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School of Economics and Finance

**QUAN 202: Business/Economic Forecasting**

Trimester 2 2012

**COURSE OUTLINE**

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**Name and Contact Details**

Lecturer: Yiğit Sağlam (Coordinator, Lecturer) Alice Fong (Course Administrator)  
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Office Hours: TBA in RH312

**Trimester Dates**

Teaching Period: Monday 16 July - Friday 19 October  
Study Period: Monday 22 October - Thursday 25 October  
Examination Period: Friday 26 October - Saturday 17 November (inclusive)

Please note that Monday 22 October is a public holiday, Labour Day.

**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**

	Date	Time	Room
Lectures:	Monday, Wednesday	11:30-12:20	RWW129
Tutorials:	Monday	13:40-14:30	RWW202
	Wednesday	09:30-10:20	RWW202
	Wednesday	10:30-11:20	RWW202

Each student is expected to attend only one tutorial. It is likely that only one tutorial time will be kept for this course throughout the course.

## Course Content

This course aims to provide students with a sound knowledge and understanding of the major fundamental results of environmental economics. Diagrams are widely used but some basic knowledge of partial differential calculus (i.e., taking derivatives of functions) is indispensable.

## Course Learning Objectives

Students passing this course should be able to:

1. explain the strengths and weaknesses of a wide range of forecasting methods (MAE 1,4,5,7),
2. critically evaluate the forecasting techniques used in particular situations (MAE 1,4,5,7),
3. produce forecasts for various types of economic variables (MAE 1,4,5,7),
4. assess the accuracy of forecasts and consequently improve forecast performance (MAE 1,4,5,7),
5. use a computer and appropriate software for practical forecasting (MAE 1,4,5,7),
6. produce a word-processed report on a forecasting project (MAE 1,4,5,7,8).

## Course Delivery

Two 50-minute lectures per week for 12 weeks, plus a 50-minute tutorial in eight of the weeks.

## Expected Workload

The **expected workload** is a total of 150 hours. In addition to the lecture and tutorial times, this might include tutorial preparation of 16 hours, reviewing material for the test and exam of 80 hours and working on assignments for 20 hours.

## Readings

Lecture notes, **announcements**, assignment questions and other information will be posted on the blackboard website: <http://blackboard.vuw.ac.nz>.

There are copies of the following recommended textbook in the library:

John E. Wanke and Dean W. Wichern, *Business Forecasting 9<sup>th</sup> ed.*, Pearson, 2009.

## Assessment Requirements

Type	Number	Weight	Total
Assignments:	6	5%	30%
Test:	1	30%	30%
Final Exam:	1	40%	40%
			100%

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.

## Materials and Equipment

To implement the theoretical development of forecasting, we will use *R* to practice forecasting techniques. *R* is an open-source software, so you can download and install it to your local computer. It is also installed and ready-to-use in the computer classrooms located in the Railway West Wing. RWW202 has been booked for the tutorial sessions. In the tutorial weeks, we will learn how to use *R* to estimate time series models.

## 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).

## Penalties

Assignments are to be placed in the relevant Mezzanine Floor mail box by 5PM on the due date. As solutions to assignments will be posted soon after the deadline, no late assignments are accepted.

## Mandatory Course Requirements

There are no mandatory course requirements.

## 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.

## Use of Turnitin

The following words below (modified as necessary for particular circumstances) should be added to the section on plagiarism when work submitted by students is likely to be checked by Turnitin. 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.

## Links

For the following important information follow the links provided:

- Academic Integrity & Plagiarism:  
<http://www.victoria.ac.nz/home/study/plagiarism.aspx>

- General University Policies & Statutes: Find key dates, explanations of grades and other useful information at:  
[www.victoria.ac.nz/home/study](http://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](http://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](http://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](http://www.victoria.ac.nz/home/about_victoria/avcacademic/Publications.aspx)
- Faculty of Commerce Offices: <http://www.victoria.ac.nz/fcom/studenthelp/>
- Te Putahi Atawhai - Maori and Pacific Mentoring Programme:  
<http://www.victoria.ac.nz/tpa>

## Intended Timetable

Date	Homework Assignments	Topic
Week 1	HW #1 assigned	Introduction & Review of Basic Statistics
Week 2		Univariate and Multivariate Distributions
Week 3	HW #1 due, HW #2 assigned	Correlation & Simple Linear Regression
Week 4		Multiple Linear Regression & Time Series Regression
Week 5	HW #2 due, HW #3 assigned	Moving Averages and Smoothing
Week 6		Forecasting
		Midterm break
		Midterm break
Week 7	HW #3 due, HW #4 assigned	ARIMA Method - AR(p) Models
Week 8		ARIMA Method - MA(q) Models
Week 9	HW #4 due, HW #5 assigned	ARIMA Method - ARMA(p,q) Models w/ Trend and Seasonality
Week 10		ARIMA Method - ARIMA(p,d,q) Models
Week 11	HW #5 due, HW #6 assigned	Nonstationarity - Unit Roots and Cointegration
Week 12	HW #6 due (last lecture)	Nonstationarity - Volatility
22-OCT-2012		Study period begins
26-OCT-2012		Final exam period begins
17-NOV-2012	2-Hour Final Exam	Final exam period ends

**Note:** Homework assignments are due the first lecture of the week, when a new homework assignment is assigned.