



School of Economics and Finance
MMAF 524: Financial Econometrics
Trimester 2 2014
COURSE OUTLINE

Name and Contact Details

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Trimester Dates

The study and assessment period is Monday 14 July Thursday 23 October.
Block Release Times: 9am 26th – 1pm 28th August
9am 21st – 1pm 23rd October

Withdrawal from Course

1. Your fees will be refunded if you withdraw from this course on or before Friday 25 July 2014.
2. The standard last date for withdrawal from this course is Friday 26 September 2014. 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.

Block Release Times and Room Numbers

	Time and Date	Room	Lab Location
Block Release One:	9am 26 th August – 1pm 28 th August	AM102	KK216
Block Release Two:	9am 21 st October – 1pm 23 rd October	MY632	KK216

The test location is MY631/632.

Course Delivery

The contact hours of the course will be during the two block releases detailed above. During the rest of the trimester, students will be expected to be engaged in self-directed study using their textbooks and material posted on Blackboard, and completing assignments which will be posted on Blackboard. Attendance at all sessions of both block releases is compulsory.

Group Work

There is no group work outside of the block release.

Expected Workload

The **expected workload** for the average student is 200 hours. During the approximately 6 weeks of term prior to each block release, students will need to allow about 14 hours per week for study, research and preparation of assignments for this course. The two block courses each involve approximately 18 hours of work.

Prescription

An operational course on financial econometrics that reviews some of the existing literature and investigates some current research areas. The course applies the theory of allowing participants to work through a number of questions with a range of financial data sets

Course Learning Objectives

Students should be able to:

1. apply quantitative tools to model, estimate and forecast financial variables,
2. analyze the statistical properties of financial prices and returns,
3. evaluate models of risk based on the Capital Asset Pricing Model and variants assuming non-normal return processes,
4. analyze recent advances in unit root and co-integration methods in modeling the term structure of interest rates and asset price bubbles,
5. describe the strengths and limitations of alternative quantitative methods by reproducing existing results using computer skills and mathematical modeling techniques, in conjunction with a range of financial data set,
6. perform sensitivity analyses on proposed models, which should include the application of alternative distributional specifications to model risk.

Course Content

This course is concerned with the application of quantitative tools to model, estimate and forecast financial variables. Topics considered include: the analysis of the properties of financial data with an emphasis on non-normality and non-stationarity; the application of estimation methods including unit roots and co-integration, to the rational valuation model of share prices; the application of the GARCH class of models to estimate volatility and to test the capital asset pricing model.

Readings

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

The following textbooks are recommended for this course:

- Campbell, J.Y., A.W. Lo, and A.C. MacKinlay, *The Econometrics of Financial Markets*, Princeton University Press, 1997.
- Cochrane, J.H., *Asset Pricing*, Princeton University Press, 2001.
- Taylor, Stephen J., *Asset Price Dynamics, Volatility, and Prediction*, Princeton University Press, 2005.
- Ait-Sahalia, Y., and Hansen, L., *Handbook of Financial Econometrics*, Elsevier.

These books, while being excellent sources, are mostly for reference, so students are not required to buy them. The university library has several copies available for those who are interested in specific chapters.

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 students can download and install it to their own computer. It is also installed and ready-to-use in the computer classrooms located in the Railway West Wing.

Students may also use a calculator during the tests.

Assessment Requirements

From Trimester 1, 2014, a revised Assessment Handbook will apply to all VUW courses: see <http://www.victoria.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf>.

In particular, there will be a new grade scheme, in which the A+ range will be 90-100% and 50-54% will be a C-.

Type	Weight	Date/Due Date	Course Learning Objectives
Assignment 1	20%	15 August	CLOs 1–4
Assignment 2	20%	11 October	CLOs 1–6
Test 1	30%	28 August	CLOs 1–6
Test 2	30%	23 October	CLOs 1–6
Total	100%		

One test at each block release session based on reading assigned for period leading up to the block release and material presented at the block release. Please bring your calculator for the tests.

Penalties

Each of the assignments will be marked out of a maximum that diminishes by 5% for every day late. Please note that the weekend no longer counts as one day (i.e. if an assignment is due by 4pm Friday and you hand it in 3pm Sunday, you will be penalized for 2 days). Please carefully read the assignment guidelines for details of how assignments should be submitted. There will be a final cut-off date, one week after the due date for each assignment, after which no assignment can be accepted. Solutions to the assignments will be posted at the end of the final cut-off date.

Use of 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 submitted to Turnitin. A copy of submitted materials will be retained 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.

Mandatory Course Requirements

Attendance at all sessions of both block releases is compulsory.

If you have, or become aware of, any health condition that could prevent your attending a VIAF compulsory block release, then you should notify the Programme Director immediately, preferably by email dawn.lorimer@vuw.ac.nz and copy the email to viaf.programme@vuw.ac.nz

If you cannot complete an assignment or sit a test or examination, refer to: www.victoria.ac.nz/home/study/exams-and-assessments/aegrotat

Communication and Additional Information

Course documents and other information will be available on the course website at <http://blackboard.vuw.ac.nz>. Announcements will also be posted there.

Link to General Information

For general information about course-related matters, go to:
<http://www.victoria.ac.nz/vbs/studenthelp/general-course-information>

Student Feedback

Student feedback on University courses may be found at:
www.cad.vuw.ac.nz/feedback/feedback_display.php.

Note to Students

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