

VICTORIA INTERNATIONAL APPLIED FINANCE PROGRAMME

School of Economics and Finance

MMAF514 Derivatives

Trimester One 2006

COURSE OUTLINE

Contact Details

The course coordinator, Professor Graeme Guthrie, is located in Room326 of Rutherford House and can be reached by email at graeme.guthrie@vuw.ac.nz.

Block Release Times

Attendance at all sessions for both block releases is compulsory.

- The first block release runs from Tuesday 11th April to the morning of Thursday 13th April, inclusive. It covers Part I of the lecture notes.
- The second block release runs from Tuesday 6th June to the morning of Thursday 8th June, inclusive. It covers Part II of the lecture notes.

Course Objectives

To develop the building blocks required to hedge and price derivative securities. To develop the adjustments needed to handle different underlying assets, as well as the specifics of different instruments. To develop the adjustments needed to handle standard features of many derivatives.

Course Content

Part I: Fundamentals of derivative pricing

- Building blocks
- Modelling stock prices
- Binomial option pricing model
- Dividends
- Early exercise
- Futures and options on futures

Part II: Interest rate derivatives

- Uncertain interest rates
- Term structure of interest rates
- Fitting the yield curve
- Interest rate derivatives

Textbooks

Comprehensive lecture notes will be provided. These lecture notes constitute the examinable material for the course. While reading more widely may potentially help you in the tests,

everything you will need to answer the test questions will be contained in these lecture notes and any supplementary material distributed at the block releases. However, reference will also be made to the following text, which is provided as part of the course material:

- Hull, John C. (2005). *Fundamentals of Futures and Options Markets* (5th edn.). Upper Saddle River, New Jersey: Prentice Hall.

It must be stressed that it is the lecture notes which comprise the examinable material for the course. You will not be examined on material appearing in Hull's book — unless, of course, it also appears in the lecture notes. The references to Hull's book are designed to help you understand parts of the lecture notes, and to provide you with some information on the mechanics of derivative markets.

If you would like a (relatively) non-technical break from the course, the following books are excellent.

- Dunbar, Nicholas (2001). *Inventing Money: The Story of Long-Term Capital Management and the Legends Behind it*. Chichester: John Wiley and Sons Ltd.
- Lowenstein, Roger (2001). *When Genius Failed: The Rise and Fall of Long-Term Capital Management*. London: Fourth Estate.

They offer insights into the real-world uses and abuses of the derivative pricing models we present in MMAF 514. They are not a formal part of the course, and are therefore not examinable.

Materials and Equipment

A calculator may be useful for the tests.

Assessment Requirements

There are four pieces of assessment in this course.

- Test 1 35% At the conclusion of the first block release
- Assignment 1 15% Due Monday 8th May
- Test 2 35% At the conclusion of the second block release
- Assignment 2 15% Due Monday 26th June

Each test will be based on reading assigned for the period leading up to the block release and material presented at the block release. A calculator may be useful for the tests.

Penalties

Each of the assignments will be marked out of a maximum that diminishes by 5% for every day late, with a weekend counting as one day. The date of submission shall be taken as the date of delivery or the day of postmark, if by post. There will be a final cut off date, one week after the due date for each assignment, after which no assignment can be accepted.

The assignments will each carry a specified word limit. If an assignment exceeds the word limit, credit will be given only from the beginning of the assignment up to the word limit. No credit will be given for the portion of work extending beyond the word limit.

Mandatory Course Requirements

To pass, a student must: (i) attend all sessions of both block release courses; (ii) obtain an average mark of at least 50% over total course assessment; (iii) obtain an average mark of at least 50% over the two tests.

Communication of Additional Information

Additional information including assignment questions, details of the block course schedule, feedback on course assessments, etc will be provided by email or by post. Students are responsible for ensuring that the VIAF Programme Senior Administrator, Bun Wong, has their up to date email and postal addresses.

If you have, or become aware of, any health condition that could prevent you attending a VIAF compulsory block release, then you should notify the Acting Programme Director immediately, preferably by email, roger.bowden@vuw.ac.nz.

Faculty of Commerce and Administration Offices

Railway West Wing (RWW) - FCA Student Administration Office

The Student Administration 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 office on (04) 463 5376.

Easterfield (EA) - FCA/Law Kelburn Office

The Kelburn Campus Office for the Faculties of Commerce & Administration and Law is situated in the Easterfield Building - it includes the ground floor reception desk (EA005) and offices 125a to 131 (Level 1). The office is available for the following:

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

Check with the Student Administration Office for opening times (04) 463 5376.

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:

www.vuw.ac.nz/policy/StudentConduct.

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

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 Policy which is published on the VUW website:

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) 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.

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. 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 Co-ordinator, or Associate Dean who will either help you directly or put you in contact with someone who can.

The Student Services Group is also available to provide a variety of support and services. Find out more at www.vuw.ac.nz/st_services/ or email 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.

Manaaki Pihipihinga Maori and Pacific Mentoring programme (Faculties of Humanities and Social sciences and Commerce and Administration).

- **What:** Academic Mentoring for Maori and Pacific students studying at all levels in the above faculties. Weekly sessions for an hour with a mentor to go over assignments and any questions from tutorials or lectures. Registered students can use the faculty's study rooms and computer suite at any time at Kelburn and Pipitea.
- Mature student and Post grad network

If you would like to register as a mentor or mentee please contact the coordinator.

Where:

Melissa Dunlop
Programme Coordinator
Room 109 D
14 Kelburn Parade: back courtyard
Ph: (04) 463 6015
Email: Maori-Pacific-Mentoring@vuw.ac.nz

Please Note: A mentoring room will also be running at Pipitea Campus starting January. Please contact the Programme Coordinator for details.