

School of Economics and Finance

## **MMAF 530 SPECIAL TOPIC – REAL OPTIONS**

Trimester Two 2006

### **COURSE OUTLINE**

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#### **Contact Details**

Graeme Guthrie

Email: [graeme.guthrie@vuw.ac.nz](mailto:graeme.guthrie@vuw.ac.nz)

Office: RH 326

Phone: 463-5763

Office hours: Monday, 1:00-2:30 pm

#### **Class Times and Room Numbers**

Friday, 12:40-15:30 in RWW127. The lecture room is booked for three hours, but each lecture will normally only last two hours.

The final exam for the course will be held during the final exam period (Thursday, 19 Oct. to Saturday, 11 Nov.).

#### **Course Objectives**

To develop a set of modelling skills that enable the analysis of a range of situations involving real options; to develop awareness of a wider range of modelling approaches; to develop the ability to identify real options embedded in investment projects; and to gain insights into various phenomena that have puzzled financial economists.

#### **Course Content**

- **Introduction**
- **A real options toolkit:** review of stochastic calculus; the valuation problem; NPV versus real options analysis; optimal stopping rules
- **Project characteristics and option value:** systematic and unsystematic risk; irreversibility; time to build
- **The economic environment and option value:** competition; capital market frictions
- **Commodity markets:** commodity prices; valuing commodity derivatives; the source of the convenience yield

#### **Expected Workload**

The workload for MMAF 530 is intended to be similar to that for other 500-level MMAF courses. The total expected workload is 200 hours, comprising 16-17 hours per week.

#### **Readings**

A set of comprehensive lecture notes will be made available. The following book, which is held on closed reserve in the commerce library, may also be useful:

Dixit, Avinash K., and Robert S. Pindyck. 1994. *Investment Under Uncertainty*, Princeton: Princeton University Press.

### **Materials and Equipment**

Calculators will not be allowed in the final examination.

### **Assessment Requirements**

The final grade in this course will be calculated using the results of three assignments and a final examination.

- Assignment 1: Due at 12:40pm, Friday, Jul. 28 (start of Lecture 3). Weight = 8%.
- Assignment 2: Due at 12:40pm, Friday, Sep. 8 (start of Lecture 7). Weight = 16%.
- Assignment 3: Due at 12:40pm, Friday, Oct. 13 (start of Lecture 12). Weight = 16%.
- Final exam: Two hours, date to be advised. Weight = 60%.

However, see the “Mandatory Course Requirements” below.

### **Penalties**

Assignments handed in late will not be marked. If a satisfactory medical certificate is provided, the weight from the assignment will be shifted onto the other pieces of assessment; otherwise, the assignment score will be recorded as 0.

### **Mandatory Course Requirements**

A necessary condition for passing the course is that the score on the final exam is at least 50%.

### **Communication of 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.

### **Faculty of Commerce and Administration Offices**

#### Railway West Wing (RWW) - FCA Student and Academic Services Office

The Faculty’s Student and Academic Services 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 Student and Academic Services Office on (04) 463 5376.

#### Easterfield (EA) - FCA/Education/Law Kelburn Office

The Kelburn Campus Office for the Faculties of Commerce and Administration, Education 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.
- Forms for FCA Student and Academic Services (e.g. application for academic transcripts, requests for degree audit, COP requests).
- Examinations-related information during the examination period.

To check for opening hours call the Student and Academic Services Office on (04) 463 5376.

## **General University Policies and Statutes**

Students should familiarise themselves with the University's policies and statutes, particularly the Assessment Statute, the Personal Courses of Study Statute, the Statute on Student Conduct and any statutes relating to the particular qualifications being studied; see the Victoria University Calendar available in hard copy or under 'About Victoria' on the VUW home page at [www.vuw.ac.nz](http://www.vuw.ac.nz).

## **Student 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 are to be taken if there is a complaint. For information about complaint procedures under the Statute on Student Conduct, contact the Facilitator and Disputes Advisor or refer to the statute on the VUW policy website at [www.vuw.ac.nz/policy/studentconduct](http://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](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; class representatives may be able to help you in this. If you are not satisfied with the result of that meeting, see the Head of School or the relevant Associate Dean; VUWSA Education Coordinators are available to assist in 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 at [www.vuw.ac.nz/policy/academicgrievances](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. The University defines plagiarism as follows:

*The presentation of the work of another person or other persons as if it were one's own, whether intended or not. This includes published or unpublished work, material on the Internet and the work of other student or staff.*

It is still plagiarism even if you re-structure the material or present it in your own style or words.

*Note: It is however, perfectly acceptable to include the work of others as long as that is acknowledged by appropriate referencing.*

Plagiarism is prohibited at Victoria and is not worth the risk. Any enrolled student found guilty of plagiarism will be subject to disciplinary procedures under the Statute on Student Conduct and may be penalised severely. Consequences of being found guilty of plagiarism can include:

- an oral or written warning

- cancellation of your mark for an assessment or a fail grade for the course
- suspension from the course or the University.

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 Impairments**

The University has a policy of reasonable accommodation of the needs of students with disabilities. The policy aims to give students with disabilities the same opportunity as 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, 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 (DSS) to discuss your individual needs and the available options and support on a confidential basis. DSS are located on Level 1, Robert Stout Building, telephone (04) 463 6070, email [disability@vuw.ac.nz](mailto:disability@vuw.ac.nz). The name of your School's Disability Liaison Person is in the relevant prospectus or can be obtained from the School Office or DSS.

### **Student Support**

Staff at Victoria want students to have positive learning experiences at the University. Each Faculty has a designated staff member who can either help you directly if your academic progress is causing you concern, or quickly put you in contact with someone who can. Assistance for specific groups is also available from the Kaiwawao Māori, Manaaki Pihipihinga or Victoria International.

In addition, the Student Services Group (email [student-services@vuw.ac.nz](mailto:student-services@vuw.ac.nz)) is 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/).

VUWSA employs 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 (tel. (04) 463 6983 or (04) 463 6984, email [education@vuwsa.org.nz](mailto:education@vuwsa.org.nz)) is located on the ground floor, Student Union Building.

### **Manaaki Pihipihinga - Māori and Pacific Mentoring Programme (Faculty of Commerce and Administration)**

This is a mentoring service for Māori and Pacific students studying at all levels. Weekly one hour sessions are held at the Kelburn and Pipitea Campuses in the Mentoring Rooms, 14 Kelburn Parade, and Room 210 and 211, Level 2, Railway West Wing. Sessions cover drafting and discussing assignments, essay writing, and any questions that may arise from tutorials and/or lectures. A computer suite networked to Cyber Commons is available for student use.

To register with Manaaki Pihipihinga, please contact one of the following:

Puawai Wereta  
Room 210, Level 2  
Railway West Wing  
Tel. (04) 463 8997  
Email: [Puawai.Wereta@vuw.ac.nz](mailto:Puawai.Wereta@vuw.ac.nz)

Fa'afai Seiuli  
Room 109 B  
14 Kelburn Parade  
Tel. (04) 463 5842  
Email: [Faafai.Seiuli@vuw.ac.nz](mailto:Faafai.Seiuli@vuw.ac.nz)