VICTORIA
UNIVERSITY OF WELLINGTON

School of Economics and Finance
FINA 303 Derivatives

Trimester 2 2016

COURSE OUTLINE

Prescription

This course covers options, forward contracts, futures contracts, and other common derivative contracts. Topics include how these contracts work, how they are used, and how they are priced.

Course Learning Objectives

By the end of this course, students should be able to:

C1 understand the main derivatives that are traded in the financial market, such as forward, futures, swaps and options.

C2 use a diagram to analyse the possible payoff of derivatives.

C3 apply derivatives to risk management.

C4 apply no arbitrage theory in the pricing of derivatives.

C5 use binomial trees and the Black-Scholes option pricing formula to price options.

Course content

Date	Lecture	Readings
11 July	Introduction to course	Chapter 1
13 July	Forward prices	Chapter 5
18 July	Futures markets	Chapter 2
20 July	Hedging using futures	Chapter 3
25 July	Interest rate futures	Chapter 6
27 July	Fixed-floating swaps	Chapter 7
1 August	Currency swaps	Chapter 7
3 August	Options markets *Assignment 1 due.*	Chapter 9
8 August	Some basic bounds on option prices	Chapter 10
10 August	Option trading strategies	Chapter 11
15 August	Review	–
17 August	Midterm exam	–
Midtrimester break	–	–
5 and 7 September	Binomial trees	Chapter 12
9 and 14 September	The Black-Scholes-Merton model	Chapter 13
19 September	Extensions to Black-Scholes	Chapter 15
21 September	Futures options *Assignment 2 due.*	Chapter 16
26 September	The Greeks	Chapter 17
28 September	Numerical methods	Chapter 18
3 October	Volatility *Assignment 3 due.*	Chapter 19
5 October	Credit derivatives and other wonderful things	Chapters 23 & 24
10 October	Derivatives disasters *Live case due.*	Chapters 8 & 25
12 October	Conclusions/Review	–

Trimester Dates

Teaching Period: Monday 11th July – Friday 14th October
Study Period: Monday 17th October – Thursday 20th October
Examination Period: Friday 21st October – Saturday 12th November (inclusive)

Withdrawal from the course

Your fees will be refunded if you withdraw from this course on or before Friday 22nd July 2016.

The standard last date for withdrawal from this course is Friday 23rd September 2016. After this date, students forced to withdraw by circumstances beyond their control must apply for permission on the form *'Application for Associate Dean's permission to Withdraw Late'* including supporting documentation. This application form is available from either of the Faculty's Student Customer Service Desks or online

Names and Contact Details

Lecturer and Coordinator: Toby Daglish, RW210, phone 463-5451,
email: toby.daglish@vuw.ac.nz
Administrator: Debbie Turner, RW111, phone 463-6386,
email: debbie.turner@vuw.ac.nz

Class times and Room numbers

Monday 9:30-10:20 GBLT3
Wednesday 9:30-10:20 GBLT3

Course delivery

The course is composed of 23 lectures and 8 tutorials.

Readings

Readings are taken from the textbook

- J. Hull, "Fundamentals of Futures and Options Markets", Pearson, 8th Edition.

Mandatory course requirements

None.

Expected workload

Expected workload for this course is 150 hours. 20 hours of lectures and midterm, 2 hours of exams, 8 hours of tutorials, and 120 hours of study/work on assignments/live case.

Assessment

The Assessment Handbook will apply to all VUW courses: see
http://www.victoria.ac.nz/documents/policy/staff-policy/assessment-handbook.pdf.

Your course mark will be a weighted average, made up as follows:

Three assignments	30%
Midterm exam	20%
Live case	20%
Final exam	30%

The assignments and live case are due at the beginning of the class mentioned in the outline unless you have made a prior arrangement. The live case is a group assignment, undertaken in a group of 4-5 students.

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 21st October – Saturday 12th November (inclusive).

Penalties

Failure to hand in a piece of assessment by the due date will result in a 20% penalty in grade by day overdue.

Group Work

The live case is a substantial piece of group work. It will probably require 24 hours of work to complete per participant.

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.

Materials and Equipment

Non-programmable calculators are required for the final exam. Some spreadsheeting work will be involved in the course, so you will need access to a computer.

Student feedback

This is the first time this course has been offered by this lecturer.

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

Class Representative

A class representative will be elected in the first class, and that persons 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.

Communication of Additional Information

Additional information will be conveyed via Blackboard.

Link to general information

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