

VICTORIA INTERNATIONAL APPLIED FINANCE PROGRAMME
School of Economics and Finance

MMAF530 STRATEGIES AND RISK MANAGEMENT OF VOLATILITY TRADING

Trimester One 2011

COURSE OUTLINE

Names and Contact Details

The lecturer for this course is Professor Ser-Huang Poon, preferred contact is via email (ser-huang.poon@mbs.ac.uk)

The administrator for this courses is Anna Potts, Room RH307, (04) 463 6148, viaf-programme@vuw.ac.nz

Trimester Dates

Monday 28th February – 21 June 2011
(Final Assignment Due: 21 June 2011)

Withdrawal from Course

Your fees will be refunded if you withdraw from this course on or before 11 March 2011.

Class Times and Room Numbers

Block Release 1: 9:20am, 19 April – 12:30pm 21 April, 2011;
Block Release 2: 9:20am Tuesday 14th June– 12:30pm Thursday 16th June, 2011.

A detailed schedule of each block release course, including room locations, will be supplied closer to the block releases. The final test for block release 1 will be held on 21 April, 2011 and the final test for the block 2 release will be held on 16 June, 2011.

Attendance for all sessions of both block releases is compulsory.

Course Content

Volatility is the heart of any investment strategy – and also the biggest source of risk in the capital markets. Most mission-critical metrics utilized to monitor and manage risk in investment portfolios are based on an assessment of volatility. One of the most widely followed indices of risk, the VIX (also called the “Fear Index”) was at an all-time high during the recent crisis and continues to be a focus of attention for market participants. In this course, you’ll explore various ways to measure volatility. But more importantly, you’ll learn how to trade volatility to manage risk – by using cutting edge products, structures, and strategies. Learn to hedge existing exposures, take profitable positions in volatility, and create opportunities to maximize portfolio performance that were unavailable just a few years ago.

Course Learning Objectives

After completing this course, students should be able to

- DISTINGUISH between historical and implied volatility
- UNDERSTAND the impact of volatility on option pricing
- UTILIZE historical and implied volatility calculation techniques
- DIFFERENTIATE between volatility smiles and skews
- DEFINE the VIX index and how it is calculated
- EVALUATE volatility-based derivative products
- DESCRIBE variance swaps and how they are utilized
- DEVELOP and ANALYSE derivative trading strategies for volatility
- DEVELOP and ANALYSE volatility dispersion and correlation trade strategies
- Understand and use key volatility models such as local vol and Heston

Course Delivery

The course will be delivered through a series of guided readings, lectures, hands-on computer laboratory sessions and coursework. The contact time will be in the form of two block releases.

Expected Workload

Expected workload for this course is 200 hours.

Readings

The textbook for this class is John Hull, Options, Futures and Other Derivatives, Prentice Hall.

Other supplementary readings, mainly consist of articles and journal papers, will be uploaded on and made accessible via blackboard.

Materials and Equipment

It is necessary to bring a calculator to the block courses. A good financial calculator such as the HP17BII or HP10BII is strongly recommended.

Assessment Requirements

Assignment one: 20%, due 3rd May

Test one: 30%

Assignment two: 20%, due 21st June

Test two: 30%

Each assignment will be distributed to you at least four weeks in advance of its due date.

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 FCA programmes. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the course.

Examinations

There are no examinations for this course, however there are two tests.

Penalties

Assignments are due at any time on the date specified. Late assignments will incur a penalty of 5% of the final grade per day late. Work submitted more than one week late will not be graded. Assignments should be submitted through Blackboard in accordance with the assignment guidelines.

Mandatory Course Requirements

Attendance at all sessions of both block releases is compulsory.

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.

Communication of Additional Information

Additional information including assignment questions, details of the block course schedule, feedback on course assessments, etc will be provided online via Blackboard. Students are responsible for logging onto Blackboard regularly to check for any updates or announcements, and for ensuring that the VIAF Senior Administrator has their up to date email and postal addresses. Viaf-programme@vuw.ac.nz . 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 Programme Director immediately, preferably by email, dawn.lorimer@vuw.ac.nz.

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 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.

For the following important information follow the links provided:

Academic Integrity and Plagiarism

<http://www.victoria.ac.nz/home/study/plagiarism.aspx>

General University Policies and Statutes

Find key dates, explanations of grades and other useful information at

www.victoria.ac.nz/home/study.

Find out about academic progress and restricted enrolment at

www.victoria.ac.nz/home/study/academic-progress.

The University's statutes and policies are available at www.victoria.ac.nz/home/about/policy,

except qualification statutes, which are available via the Calendar webpage at

www.victoria.ac.nz/home/study/calendar (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

AVC (Academic) Website: information including: Conduct, Academic Grievances, Students with Impairments, Student Support

http://www.victoria.ac.nz/home/about_victoria/avcademic/Publications.aspx

Faculty of Commerce and Administration Offices

<http://www.victoria.ac.nz/fca/studenthelp/>

Manaaki Pihipihinga Programme

http://www.victoria.ac.nz/st_services/mentoring/