

School of Economics and Finance

FINA 307 RISK MANAGEMENT AND INSURANCE

Trimester 1, 2015

COURSE OUTLINE

Lecturer Leigh Roberts, RH 323, phone 463-5937 (coordinator)
office hour: 9.30 - 10.20 Thursdays in RH 323
email: leigh.roberts@vuw.ac.nz

Administrator Debbie Turner, RH 321, phone 463-6386
email: Debbie.Turner@vuw.ac.nz

Lecture times Monday, Thursday 10.30 - 11.20, GBLT3

Tutorials Tutorials are held in weeks 2-4, 6-7, 9-10, and 12.

Tutorial times Wednesday 9.30 - 10.20, RWW 223
Friday 9.30 - 10.20, RWW 223
Friday 11.30 - 12.20, GBG 04
Friday 12.40 - 13.30, RWW 222

Trimester dates

Teaching Period: Monday 2 March to Friday 5 June 2015

Study Period: Monday 8 June to Thursday 11 June 2015

Examination Period: Friday 12 June to Wednesday 1 July 2015 (inclusive)

Withdrawal from the course

Your fees will be refunded if you withdraw from this course on or before Friday 13 March 2015.

The standard last date for withdrawal from this course is Friday 15 May 2015. 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', and include supporting documentation. This form is available from either of the Faculty's Student Customer Service Desks.

Prescription

Topics in risk management and insurance, including the use of financial markets to transfer and share risk, financial risk management case studies; insurance as a means of transferring and sharing risk; recent developments in insurance markets.

Course Learning Objectives

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

1. identify the principles of risk management, and discuss the role of risk management in a modern economy;
2. analyse the role of financial markets and derivative securities in allocating and managing risk;
3. explain the role of insurance markets in allocating and managing risk;
4. analyse the use of value at risk and economic capital in financial risk management;
5. discuss the role of quantitative modelling of catastrophe and other risks;
6. analyse the role of risk neutrality in allocating and managing risk;
7. discuss selected cases of poor risk management from the recent past in the financial sector;
8. explain the purposes of regulation of the financial sector and its impact on the risk manager.

Course Content

The content and timing of the course, and the order of presentation, may differ slightly from the information given in the following table. Note that Friday 3 April, Monday 27 April and Monday 1 June are University holidays (Good Friday, Anzac Day holiday and Queen's Birthday).

FINA 307 Date, 2015	Week	Theme	Essay	Ass set due	Tuts
2 - 6 March	1	Introduction, scope of RM; MG			
9 - 13 March	2	MG, General Insurance		1	Tut
16 - 20 March	3	Insurance, exposure; VaR, economic capital			Tut
23 - 27 March	4	life insurance, reinsurance; captives		2	1 Tut
30 March - 3 April	5	Libor, swaps; CDOs, CDSs, cat bonds			
<i>Mid-trimester break, 2 weeks: Monday 6 April - Friday 17 April 2015</i>					
20 - 24 April	6	Savings & Loan, GFC	App	2	Tut
27 April - 1 May	7	GFC		3	Tut
4 - 8 May	8	Hedge Funds			
11 - 15 May	9	Regulation		3	Tut
18 - 22 May	10	Basel, Volcker	Due		Tut
25 - 29 May	11	Dark Pools			
1 - 5 June	12	Revision			Tut

Under the Essay column, 'App' denotes approval of the essay topic by the coordinator.

Assignments are set in the weeks indicated above, to be handed in to blackboard by the Friday (midnight) two (course) weeks later. The coordinator may give permission for more mathematical assignments to be handed in by hard copy, generally by 5 pm, to a Box on the Mezzanine floor, Rutherford House. The box number will be notified on blackboard should this be necessary.

The open-source computer package R will be used for at least one assignment, and students are encouraged to upload R onto their personal computers as soon as the course starts. More details are given below.

Students should think about their essay topic early in the course, and a list of suggested topics is circulated, on blackboard and in lectures, within the first two weeks of the course. While students may choose a topic which is not on this list, all essay topics are subject to approval by the coordinator, and to be confirmed by email exchange with the student, no later than the end of week 6 (Friday 24 April 2015).

The essay is due by the end of week 10, Friday 22 May 2015, and is to be submitted electronically to Blackboard, by midnight on the due date. Penalties are imposed for late submission of assignments and essay, and for not obtaining approval of the essay topic by the deadline: see the Penalties section below.

Submitted essays should list the approximate number of words, and have page numbers inserted. Penalties may be imposed if the length of work submitted does not lie within the recommended range of the number of words.

Further notes on the requirements for essays in this course are available on Blackboard: <http://www.blackboard.vuw.ac.nz/>.

Expected Workload

In weeks when there is a tutorial (see the course content) you should expect to spend 3 hours in class per week (2 lectures and 1 tutorial); in the remaining weeks you should expect to spend 2 hours in class per week (2 lectures).

You should expect to spend about 7 to 9 hours per week reading, studying and completing essays and assignments. Overall it is expected that you will spend approximately 150 hours on completing this course.

Readings

Lecture notes and readings will be made available on Blackboard.

It is *not* recommended that you purchase any text books for this course.

Parts of the course will be based on Hull (2012):

- J C Hull (2012), *Risk Management and Financial Institutions*. Third edn, Wiley.

This book is available as an e-book in the VUW library. The first and second editions of this book (2007, 2009) are less suitable for the course, inasmuch as the third edition contains some new material which may be incorporated into the course.

Further books which may provide useful background for the course include:

- C L Culp (2002), *The ART of Risk Management*. Wiley.
- F X Diebold, N A Doherty and R J Herring (2010), *The Known, the Unknown and the Unknowable in Financial Risk Management*. Princeton.
- M Naylor (2005), *Risk Management and Insurance in New Zealand*. Thomson.
- J Teale (2008), *Insurance and Risk Management*. Wiley.
- B Tuckman and A Serrat (2012), *Fixed Income Securities: Tools for Today's Markets*. Third edn, Wiley.

Materials and Equipment

A calculator may be needed for tutorials and assignments, as well as for the final exam. The calculator must be able to work out powers, and have the exponential and the logarithmic functions. Statistical functions (mean, variance etc) are not required. In addition, the calculator must be silent and have its own power source.

More advanced calculators, such as graphics and programmable calculators, are not needed for this course. Programmable calculators must be reset prior to the exam.

If you do not already have a calculator, talk to the lecturer before you buy one. A basic calculator suitable for the course should cost no more than about \$20.

One or more assignments will involve the use of the computer suite R, available to students in RWW 202. No previous knowledge of R is assumed, and assignments set

involving R should not take longer to complete than non-mathematical assignments. If they wish, students may download R onto their own computers: it is open-source software, available free from <http://www.r-project.org/>.

Assessment

- 30% Three assignments, each worth 10%.
- 30% Essay, of 2500-3000 words, to be submitted electronically to Blackboard by the end of week 10, Friday 22 May 2015.
- 40% Two hour final examination, during the examination period, Friday 12 June - Wednesday 1 July 2015 (inclusive).

A minimum mark of 40% is required in the final exam for a pass in the course.

All assessment addresses CLOs 1 and 2; CLOs 3-6 are addressed primarily by assignments; and the essay and the exam will address CLOs 7 and 8.

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

Penalties

Except in the matter of illness (for which a doctor's certificate is required), or other highly exceptional circumstances, marks for essays and assignments are reduced by 5% for each day late.

Failure to obtain approval by email of the essay topic by the due date may cause the mark for the essay to be reduced by 5% for each week late.

Essays and assignments appearing to be copied will be marked as zero. Appeals on marking may be made to the coordinator in the first instance, and to the Head of School if there is still disagreement.

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.

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 following period:

Friday 12 June - Wednesday 1 July 2015 (inclusive)

Mandatory course requirements

Submission of the essay and attendance at the exam are compulsory.

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

A minimum mark of 40% is required in the final exam for a pass in the course.

Class representative

A class representative will be elected in the first class, whose name and contact details will be 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 to students via Blackboard.

Student Feedback

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

Link to general information

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

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.