

## Department of Finance NUS Business School National University of Singapore

# FIN3118 Financial Risk Management

TERM 2 2017/2018

## **Course Information**

Day and Time: Monday or Wednesday 11AM-2PM

Location: BIZ1-0201(M)/BIZ2-0510 (W)

Module Credit: 4

#### Instructor Information

Instructor: Sungjune Pyun

Office Hours: Monday 3-5 PM, or by appointment

Office: BIZ1 7-61

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## Course Description

This course covers one of the core functions of finance, namely, risk management. The objective is to introduce the fundamental concepts, principles, and practices of financial risk management. The focus of the module is in the identification, measurement, monitoring, and control of financial risk. This course also addresses the basic financial and statistical techniques that enhance risk management decision making. The course begins by looking at risk management concepts and the risk management process. It then examines the approaches used to identify, measure and reduce risks. Topics to be covered include risk measurement - Value-at-Risk (VAR) methods, measuring and managing market risk and credit risk, risk management applications, managing other risks such as liquidity and operational risks, regulatory and capital issues, risk-adjusted performance, and implementing a risk management program. A successful completion for this course will also help prepare for the Financial Risk Manager Exam administered by GARP.

#### Prerequisites

Required: Investment Analysis and Portfolio Management FIN 3102 or equivalent

Recommended: One course in Statistics

#### **Textbooks**

- 1. Financial Institutions Management (A Risk Management Approach), 9th edition, by A. Saunders and M.Cornett, McGraw-Hill (SC, Recommended)
- 2. Elements of Financial Risk Management (Second Edition), Peter Christoffersen (C, Recommended)

http://www.sciencedirect.com/science/book/9780123744487

- 3. A financial calculator (e.g. Texas Instrument BA II Plus, Required)
- 4. Risk Management and Financial Institutions, 4th edition, by Hull, Wiley (H, Reference)

#### Final Grades

Your class grade will be calculated based on the following weights:

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Two Tests	40%	(20%/20%)
Two Graded Assignments	25%	(10%/15%)
Group Final Project	20%	
Class Participation	10%	
Attendance	5%	

## Tests (40%)

Two in-class tests will be given throughout the course. These tests are closed book and non-cumulative if not otherwise noted during class. A one-sided cheat sheet is allowed per test, but the letters must be larger than those in this syllabus. All materials covered in class, all assignments, and materials posted on the class website are covered. Financial calculators are allowed and recommended, but other electronic devices (cell phones, smartphones, laptops, tablet PCs, e-readers, i-pads, etc.) are not allowed.

## Assignments (25%)

There are two assignments in this class. Group work is encouraged, but each student needs to turn in their own work. Some of the questions require use of Microsoft Excel. You will be graded based on the clarity and the flow of your logic. Writing up an incorrect answer with a good logic may be given a higher score than a correct answer with no logic. Copy-pasting the answers from your classmates is strictly prohibited, and may result in 0 points in assignments.

Please submit **both** a hard copy and a soft copy. You will be graded based on the hard copy, but submitting a soft copy provides insurance in case your assignments get lost or damaged. If you do not submit a soft copy, I cannot give credits if you later claim your work is missing.

There may be two other assignments, which will not be graded, but would serve as a practice for the tests.

## Group Final Project (20%)

You are required to complete a group project by the end of the semester. In groups, you are required to prepare a presentation of cases of recent risk management failures in Asia. The presentation should contain 1) The theoretical underpinnings, 2) general practices of risk management before the failure (Causes), 3) the consequences of the failure, 4) whether the failure had any affect on other firms/sectors of the economy, 5) whether preventing the failure would have been possible with successful risk management, and/or 6) an analysis of whether risk management practices in general have changed after the failure. You are encouraged to discuss the details of the project with the instructor.

## Class Participation (10%)

Your presence and participation in class are essential for gaining mastery of the material. Class participation is determined based on how actively you participate in the discussion as well as on the peer review for the group project.

#### Attendance (5%)

Attendance is taken on a random-basis, and may not be taken every week. Some times, I will check everyone's name, in other times I will do a random check. No documents required for the first two absences. Documents should be submitted within a week to the instructor. If you are late twice,

that counts as one absence. Students are responsible for all missed work, regardless of the reason for absence. It is also the absence's responsibility to get all missing notes or materials.

### Course Policies:

#### • General

- Computers/Tablets/I-pads are not to be used during class.
- Please turn off your cell phone or to silent mode.
- You will be penalized for late submission of the assignments/project.
- Drinks and snacks are permitted but avoid warm food.

## • Re-grading

Questions and concerns regarding grading (of assignments/quiz) must be submitted in writing along with the entire assignment. Any regrading request will result in the entire assignment to be re-graded. This means that your score after re-grading can be below (or above) your original score. Re-grading requests will only be accepted within one week of the date of return of the graded item in question. Returned paperwork, unclaimed by a student, will be discarded and assumed to be claimed by the student after 4 weeks and hence, will not be available should a grade appeal be pursued by a student following receipt of his/her course grade.

## Academic Integrity:

Academic integrity and honesty is essential for the pursuit and acquisition of knowledge. The University and School expect every student to uphold academic integrity & honesty at all times. Academic dishonesty is any misrepresentation with the intent to deceive, or failure to acknowledge the source, or falsification of information, or inaccuracy of statements, or cheating at examinations/tests, or inappropriate use of resources.

Plagiarism is 'the practice of taking someone else's work or ideas and passing them off as one's own' (The New Oxford Dictionary of English). The University and School will not condone plagiarism. Students should adopt this rule - You have the obligation to make clear to the assessor which is your own work, and which is the work of others. Otherwise, your assessor is entitled to assume that everything being presented for assessment is being presented as entirely your own work. This is a minimum standard. In case of any doubts, you should consult your instructor. Additional guidance is available at:

http://www.nus.edu.sg/registrar/administrative-policies/acceptance-record.html http://www.nus.edu.sg/registrar/adminpolicy/acceptance.html#NUSCodeofStudentConduct

Online Module on Plagiarism: http://emodule.nus.edu.sg/ac

# Tentative Course Outline:

The weekly coverage might change as it depends on the progress of the class.

Date (Week of)	Content	Readings
Jan 15	Statistics/Finance Review	
Jan 22	Introduction to Risk Management	C.1, SC.7 or H.1
Jan 29	Interest Rate Risk Management	SC.8, SC.9, SC.24 or H.9
Feb 5	Credit Risk Management	SC.10, SC.11, SC.24 or H.18, H.19, H.20
Feb 12	Liquidity Risk, Basel Accord	SC.12, SC.20 or H.15, H.16
Feb 12	Assignment 1 Due	
Feb 19	Test 1	
Feb 26	Recess Week	
Mar 5	Market Risk (Fundamental Concepts)	C.1 (H.12)
Mar 12	Simulations, Expected Shortfall	C.2 (H.12)
Mar 19	Volatility Modelling	C.4, C.6 (H.10, H.11)
Mar 26	Stress Testing and Back-testing	C.13 (H.13, H.22)
Apr 2	Operational Risk Management	SC.17 or H.23
	(If necessary) Final Project Presentation	
	Assignment 2 Due	
Apr 9	Final Project Presentation	
Apr 16	Test 2	