Department of Finance
NUS Business School
National University of Singapore

FIN 3714 Financial Risk Management

TERM 1 2022/2023

Course Information

Day and Time: TBA
Location: TBA
Module Credit: 4

Instructor Information

Instructor: Sungjune Pyun
Office Hours: To be held virtually by appointment
There will be one long Q&A session one or two days before the final test
Office : BIZ1 7-61

Communication

E-Mail: sjpyun@nus.edu.sg

Email is the best way to contact me. Any questions directly related to course materials are to be written on the Q & A section of our course web page on LumiNUS. I subscribe to the forums, so there is no need to worry about the possibility that no one is reading your question. Note that questions related to lecture materials sent by email may be ignored. Any administrative questions/requests should be sent by email and will generally be answered within two days (Please put course number [FIN3714] in the subject).

Textbooks

You are not required to buy and textbook. I assume you at least have a computer and a financial calculator. In the first half of the course, we cover the first few chapters of:

1. Elements of Financial Risk Management (Second Edition), Peter Christoffersen **(C)** :
`http://www.sciencedirect.com/science/book/9780123744487`

In the second half, a lecture note will be distributed. For those who would like to read more can consult:
2. Risk Management and Financial Institutions, 5th edition, by Hull, Wiley **(H)**
3. Financial Institutions Management (A Risk Management Approach), 9th edition, by A. Saunders and M.Cornett, McGraw-Hill **(SC)**
4. Options, Futures, and Other Derivatives (Ninth Edition), by Hull, Pearson **(HD)**

Important Dates

Final Test: Last week of instructional period
Project presentations : Weeks 11 and/or 12 of the instructional period

Final Grades

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

One Test (Last week of class)	30%	
Weekly Task (Homework, Report, or Quiz)	35%	(equally weighted)
Group Project	25%	
Class Participation	10%	

Prerequisites

FIN3102/3702. QF3101 can substitute FIN3702 if the BBA office allows
This course requires a good understanding of introductory statistics.

Test (30%)

There will be one final open-book test on the last week of the semester (on the scheduled class time) and cover the entire material, including student presentations. Communication between students, as well as usage of the internet is disallowed. Exact details will depend on the university policy regarding Covid-19 as well as government restrictions. Without any further restrictions, the test will be administered in person. Details will be announced later in the semester.

Weekly Task (35%)

In this class, we will have 9-10 weekly assignments. The nature of the assignments will be a combination of 1) three online or in person open book quiz, 2) three individual problem sets, 3) two data assignments, and 4) a group report following a discussion of a pre-assigned topic. The primary goal of these assignments is primarily to engage in student participation. Hence, these assignments will be mainly graded based on whether sufficient effort is exerted for each topic. The nature of the assignment will be announced at least four days before the deadline and the details are subject to change.

Group Project (25%)

The group project consists of a presentation and a report. The project may be 1) a mini-case on recent risk management failures, 2) a subject of interest that is not covered in this class but is of your interest that you want to share with the rest of the class, or 3) an empirical analysis of the data of your interest applying the key concepts covered in this class. The presentations will take place in weeks 11 and 12. Further details will be announced later in the semester.

Class Participation (10%)

Your presence and participation in class are essential for gaining mastery of the material. Participation mainly consists of the sum of the following. 1) In-class engagement, including answering or asking questions 2) involvement in the online forum on LumiNUS, which will be quantified at the end of the semester 3) missing a number of lectures. I understand you may not feel from time to time. Although I may be taking attendance, you need not notify me if you are missing one or two lectures. You will not be penalized for missing up to two lectures. However, do note that it is your responsibility to follow up with your classmates about important announcements that may be made during the lecture as well as to get all missing notes and materials.

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. I also take violation of academic integrity very seriously. 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.

The University and School will not condone plagiarism. Students should adopt this rule - You have an 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. Even if you are allowed to work with your classmates, you should give your classmates credit if you worked together. Plagiarism may result in a 'fail' grade, even when you did extremely well in other components. 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:

1. : Introduction to Financial Risk Management H.1, C.1, SC.7
2. : Stock and Bond Markets C.1, H.12
3. : Value-at-Risk Basics C.1, H.12, HD.22
4. : Monte-Carlo Simulations C.2, H.12,14, HD.22
5. : Historical Simulations and Backtesting C.2, H.12-13, HD.22
6. : Credit risk basics/credit default swaps H.6, 18-21, SC.10-11,24, HD.8,24-25
7. : Futures and Options Basics H.5, HD.19
8. : Risk Management Using Option Greeks H.8, 14, HD.19
9. : Case Study on Recent Crises

Up to two pre-recorded lecture on introductory statistics may be provided, which is optional, but part of what will be tested during and at the end of the semester.