FIN3714 FINANCIAL RISK MANAGEMENT

AY2024/2025 Semester 1

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Consultation: By appointment only

OBJECTIVE

This course provides an introduction to the measurement, analysis and management of risk in financial institutions. The key principles, concepts and models commonly used in financial risk management will be thoroughly covered. Students will be required to implement these risk models using Excel. In addition to quantitative risk models, we will also cover important risk management techniques used in managing interest rate, foreign currency and credit risks. Several real-life examples will be discussed in class, with a particular emphasis on learning from past financial crises. At the end of the course, students should be able to develop a conceptual and practical framework for thinking about risk management.

TEXTBOOKS

1. Elements of Financial Risk Management (Second Edition), Peter Christoffersen:
   http://www.sciencedirect.com/science/book/9780123744487
2. Risk Management and Financial Institutions, 6th edition, John Hull, Wiley Finance

ASSESSMENTS

Component	Weight	Individual/Group
Class participation	10%	Individual
Mid-Term Quiz	20%	Individual
Assignments	20%	Individual
Group Project	20%	Group
Final Quiz	30%	Individual
Total	**100%**	

PREREQUISITES

- FIN3102/3702 Investment Analysis and Portfolio Management

- A good understanding of introductory probability and statistics

GROUP PROJECT

Each student will work on a group project throughout the semester, which will be an evaluation of a financial crisis. You must form groups of 4 or 5 students for this project (not less than 4, not more than 5 per group). At the end of the semester, each group will be required to make a presentation in class and submit a written report. More details about the project will be revealed in class at the start of the course.

COURSE OUTLINE (*tentative, subject to change*)

1. Risk Management: The Big Picture
2. Risk Measurement (Value-at-Risk (VaR) and Expected Shortfall)
3. Simulations and Model-Building Approaches
4. Scenario Analysis and Stress Testing
5. Liquidity Risk and Model Risk
6. Risk Management using Option Greeks
7. Lessons from Financial Crises

ACADEMIC INTEGRITY

All students in this course must adhere to university standards of academic integrity at all times, which is essential for the pursuit and acquisition of knowledge. Cheating, plagiarism, and other forms of academic dishonesty will not be tolerated in this course, *at all*. This includes, but is not limited to, consulting with another person during an exam, turning in work that was prepared by someone other than you (including from any AI engine or a web source), and making minor modifications to the work of someone else and turning it in as your own. Everything you submit must be your work and your work alone – if you include any content that is not entirely produced by you, you must include citations to that source. Ignorance will not be permitted as an excuse. If you are not sure whether something you plan to submit would be considered either cheating or plagiarism, it is your responsibility to ask for clarification.

Artificial Intelligence (AI) tools such as ChatGPT do not require specialist knowledge to use. Many of these AI tools are commonly used in social media, for example, to create content and disguise and refine content created from programmes like ChatGPT. I understand that students may be drawn to using these AI Tools, as they would for any other electronic aid.

However, to be clear, normal academic rules still apply. As noted in the Code of Student Conduct: "*The University takes a strict view of cheating in any form, deceptive fabrication, plagiarism and violation of intellectual property and copyright laws. Any student who is found to have engaged in such misconduct is subject to disciplinary action by the University*."

The use of any and all AI tools is not allowed in this course. If you do end up using ChatGPT or any other AI tool in your work, you must provide a proper citation and representation of how you used the tool and what prompts you used to generate output. Failure to cite its use constitutes academic misconduct.

Additional guidance can be found at:
Admission Condition: http://www.nus.edu.sg/registrar/administrative-policies-procedures/acceptance-record#NUSCodeofStudentConduct
NUS Code of Student Conduct: http://nus.edu.sg/osa/resources/code-of-student-conduct Academic Integrity Essentials: https://libguides.nus.edu.sg/new2nus/acadintegrity#s-lib- ctab-22144949-4
Guidelines on the Use of AI Tools For Academic
Work: https://libguides.nus.edu.sg/new2nus/acadintegrity#s-lib-ctab-22144949-3