

FIN3722 Course Outline

As 29 Nov, 2025

Programme : NUS Business School BBA
Module Code : FIN3722
Module Title : Sustainability Risk Management
Class Date : From 13/1/2026 To 10/5/2026
Semester : Semester 2, Academic Year 2025-2026
Faculty : A/Prof Chen Renbao
Department : Finance
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URL : Click here to enter text
Telephone : 65163188 / 92387879
Class Hours : 12:00-15:00 PM Friday
Class Venue : BIZ1 2-6
Office : BIZ1 #07-05
Email : bizchenr@nus.edu.sg

Consultation Hours: Wednesday 15:00-18:00; Other time by appointment

Course Description

1. Sustainability factors are becoming more influential for the financial returns and long-term value creation of a corporate. In addition to financial risks, the environment, social and governance (ESG) risks must be properly managed by various stakeholders such as corporate, suppliers, customers, investors, governments, and regulatory bodies.
2. This course aims to provide the comprehensive understanding on the sources of the ESG risks as well as financial tools, theoretical principles, and various risk management frameworks to be employed to manage various risks, such as financial, climate change, corporate operational, human error, and technology related crisis.
3. We will also summarize on how to make a company more sustainable by examining internal factors in addition to climate changes and other external factors. Asian-based case studies are included.
4. In the end, I will share with you my own experiences on how to make yourself more sustainable and successful in your career development.

Course Objectives

Students would expect to achieve the following learning outcomes:

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1. able to identify and understand different types of sustainability risk and their impacts on firms and other organisations.
2. able to understand fundamental financial risk management (FRM) and insurance tools and models.
3. able to implement the right risk management frameworks and tools to reduce the impact of different risk exposures.
4. Asian cases will be used to enhance students' understanding and implementation.

Basic Reference Books:

1. *(BIC) Christoffersen, P. (2012). Elements of financial risk management (2nd edition). Academic Press.*
2. *International Environmental Risk Management: A Systems Approach*; by Robert A. Woellner, John Voorhees, et al. Aug 13, 2020
3. *Recent Technologies for Disaster Management and Risk Reduction: Sustainable Community Resilience & Responses*; by Praveen Kumar Rai, Prafull Singh, et al. Aug 21, 2021
4. Other reading articles will be provided in due course.

Note: Basic Reference books 1 is very quantitative and for your self-study if you are weak in statistics and finance.

Assessment

Assessment Components	Weightage
Mid-term Test	30%
Final Test	30%
Group Project	30%
Class Participation	10%
Total	100%

1. **Midterm test** will cover topics from 1 to 6. **Final test** covers all topics taught in the module with more weight from Topics 7 to 12. Both tests are closed book pen and paper exams with formula provided. Students are to make sure that they are available to sit for the tests as specified in the course outline below.
2. **Suggested Guidelines for Group Project:**
 - 1) This is a group project (4 to 6 students). Final number of groups and group members will depend on actual enrolment. All members are required to make equal contributions toward the project report. The instructor will conduct peer review among you if there is any written complain related to the inadequate contribution you made to the project.
 - 2) You can choose any topic related to Sustainability Risk Management. Please look at the topics in this course outline.
 - 3) The length is between 20 to 25 pages (indicative but not exceeds 30 pages) with Single Spaced/Time New Roman 12 including references, tables, and graphs. You may put tables and graphs with the text or in the end of the text.
 - 4) Please submit related files (word, PPT, their PDFs, and excel if there is any) to Canvas **11:59 pm 10 April and one time per group.**
3. **Class participation:** You must attend class unless you have valid reasons. Please email me if you could not attend the coming class. Your answers from clarifying questions to creative and insightful comments, are greatly encouraged. Your active participation will transform this class into a great learning experience for everyone, including myself. Marks will be awarded not based on quantity but how much one contributes to the learning of the class.

Important Note:

- 1) For these who are weak in math and statistics, please self-study the referenced books and articles, even though we will only focus on how to use the formulas rather than their deviations.
- 2) **Understanding the lectures are most important and is the minimum for preparing for the tests.**
- 3) In order for you to better understand this course, I will provide you some tutorial questions for you to practice. Only solutions for calculation questions will be provided. The answers to essay questions will be found from the related reading materials and lecture notes.

FIN3722 Schedule and Outline

(Detailed reading materials will be provided later)

Class Time: Friday 12:00-15:00; Classroom BIZ1 2-6

Topic #	Date	Topics
1	16/01	Introduction to Sustainability Risk Management
2	23/01	Environment Risks: Facts, Impacts, and Causes
3	30/01	Environment Risk Modelling and Management
4	06/02	Social Risk Management; Case 1: Singapore CPF VS US Social Security
5	13/02	IT Risk Management and Cases
6	20/02	Insurance Fundamentals
		21/02-01/03 Recess Week
7	07/03	1) Mid-term Exam (Topics: 1-6, (12:00-13:10 pm During Class Time; in Rooms BIZ1 2-6 and TBC);
		2) Having Class (13:20 -14:45 pm): Financial Risk Measurement and Management Tools; Case 2: 2008 Great Financial Crisis
8	14/03	Corporate Governance: Issues, importance, and examples
9	21/03	ESG Reporting of Risk Metrics Case 3: DBS
10	27/03	Internal Sustainability Risk Management Part I: Positioning, SOPs, and Financial Diagnosis Case 4: ABC Company
11	03/04	Public Holiday
12	10/04	Internal Sustainability Risk Management Part II: Strategic Planning, Annual Forecast and ESOP Case 5: Midea & Huawei; How to Make Yourself More Competitive and Sustainable. Hand in Group Project before 11:59 pm 10 April.
13	17/04	Final Test TBC
	18/04	Good Friday No Class

Dr Chen Renbao
National University of Singapore Business School
Tenured Associate Professor of the Department of Finance
2012 Best Chinese EMBA Professor
University of Pennsylvania
Doctor of Insurance and Doctor of Demography and Postdoctoral Fellow

He is currently a tenured Associate Professor in the Finance Department of the Business School at the National University and received the Best Teacher in 2012 for teaching the Chinese EMBA program. He graduated from the Department of Economics of Anhui University in 1985. He went to the University of Pennsylvania to study in the United States in 1988. In 1993, he obtained a Ph.D. in Insurance, a Ph.D. in Demography, and a post doctorate from Wharton School, University of Pennsylvania.

He served as an independent director and consultant for several listed and non-listed companies in the region, NUS Endowment Fund advisor, Academic Director of Chinese EMBA program at NUS, Academic director of International MBA (IMBA) of NUS and Peking University, China.

In 1994, he joined the Department of Finance and Accounting (now Department of Finance), NUS, teaching undergraduate, postgraduate, and EMBA financial management and insurance courses as well as Sustainability Risk Management for Master and MBA students. He specialized in corporate financial diagnosis and management; corporate strategic planning and budget, designing assessment and incentive plans; risk management and insurance; Designing stock incentive plan and retirement planning. For about 30 years, he has provided financial management, bank management, human resources and insurance training for companies in Singapore and China and conducted consulting and feasibility studies for companies investing in China and overseas.



Appendix: ACADEMIC HONESTY & PLAGIARISM

Academic integrity and honesty are 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/adminpolicy/acceptance.html#NUSCodeofStudentConduct>

Online Course on Plagiarism: <http://emodule.nus.edu.sg/ac/>