Annexe A: New/Revised Course Content in OBTL+ Format

Course Overview

The sections shown on this interface are based on the templates UG OBTL+ or PG OBTL+
If you are revising/duplicating an existing course and do not see the pre-filled contents you expect in the subsequent sections e.g. Course Aims, Intended Learning Outcomes etc. please refer to Data Transformation Status for more information.

Expected Implementation in Academic Year	AY2024-2025
Semester/Trimester/Others (specify approx. Start/End date)	Semester 2
Course Author * Faculty proposing/revising the course	Wei Pengyu
Course Author Email	pengyu.wei@ntu.edu.sg
Course Title	Financial Risk Management
Course Code	BR2210
Academic Units	3
Contact Hours	39
Research Experience Components	Not Applicable

Course Requisites (if applicable)

Pre-requisites	
Co-requisites	
Pre-requisite to	
Mutually exclusive to	BF2209, BF2221, BF3202 and BF3216
Replacement course to	
Remarks (if any)	

Course Aims

This course provides in-depth background knowledge of financial products and the markets in which they trade. It covers the analysis of derivative instruments such as options, forward contracts, futures contracts, and swaps. The course discusses how these contracts work, how they are used, and how they are priced. The course aims at equipping students with necessary knowledge and skills to prepare for Financial Markets and Products in GARP FRM Exam Part I.

Course's Intended Learning Outcomes (ILOs)

Upon the successful completion of this course, you (student) would be able to:

ILO 1	Describe the mechanics of forwards and futures
ILO 2	Describe hedging strategies involving forwards and futures
ILO 3	Calculate forwards and future prices
ILO 4	Describe the mechanics of swaps
ILO 5	Describe the mechanics of options
ILO 6	Describe trading strategies involving options and calculate their payoffs
ILO 7	Analyse properties of option prices
ILO 8	Calculate option prices using binomial trees and the Black-Scholes-Merton model
ILO 9	Apply Greeks to hedging and risk management
ILO 10	Describe the mechanics of credit derivatives

Course Content

• Forwards and futures markets • Trading strategies involving forwards and futures • Interest rates • Pricing forwards and futures • Swaps • Options markets • Trading strategies involving options • Properties of options • Option pricing • Credit derivatives

Reading and References (if applicable)

Basic Text John C. Hull. Fundamentals of Futures and Options Markets, Global Edition, 8th Edition, 2017.

Planned Schedule

Week or Session	Topics or Themes	ILO	Readings	Delivery Mode	Activities
1	Introduction to Financial Markets and Derivatives	1,4	Chapter 1	In-person	
2	Mechanics of Futures Markets, Hedging Strategies Using Futures	1,2	Chapters 2 and 3	In-person	
3	Interest Rates, Determination of Forward and Futures Prices	3	Chapters 4 and 5	In-person	
4	Interest Rate Futures	1-3	Chapter 6	In-person	
5	Swaps	4	Chapter 7	In-person	
6	Securitization and the Credit Crisis of 2007, Mechanics of Options Markets	5	Chapters 8 and 9	In-person	
7	Midterm	1-5		In-person	
8	Properties of Stock Options, Trading Strategies Involving Options	6,7	Chapters 10 and 11	In-person	

Week or Session	Topics or Themes	ILO	Readings	Delivery Mode	Activities
9	Option Pricing: Binomial Tree Models, Option Pricing: The Black-Scholes-Merton Model	8	Chapter 12 and 13	In-person	
10	Option Greeks and Hedging, Credit Derivatives	9,10	Chapter 17 and 23	In-person	
11	Presentation			In-person	
12	Presentation			In-person	
13	Review			In-person	

Learning and Teaching Approach

Approach	How does this approach support you in achieving the learning outcomes?
Lectures	The interactive lecture session explains key concepts in detail, supported with illustrating examples. The lectures provide ample opportunities for open discussion on the conceptual questions raised in the class, which allow you to think critically and share your ideas with the class. The interaction between the instructor and the entire class ensures that the targeted learning outcomes can be achieved.
In-class activities	Interactions are encouraged in class to enhance critical thinking and class engagement. Instant feedback will be provided to in-class participation to ensure the learning goals can be attained.

Assessment Structure

Assessment Components (includes both continuous and summative assessment)

No.	Component	ILO	Related PLO or Accreditation	Weightage	Team/Individual	Rubrics	Level of Understanding
1	Summative Assessment (EXAM): Final exam()	ILO1-10	Critical Thinking, Acquisition of knowledge	50	Individual	Analytic	Multistructural
2	Continuous Assessment (CA): Test/Quiz(Midterm Examination)	ILO1-5	Critical Thinking, Acquisition of knowledge	30	Individual	Analytic	Multistructural
3	Continuous Assessment (CA): Class Participation()	ILO1-10	Oral Communication & Critical Thinking	10	Individual	Holistic	Not Applicable
4	Continuous Assessment (CA): Presentation(class presentation)	ILO5-9	Oral Communication & Critical Thinking	10	Individual	Holistic	Multistructural

Description of Assessment Components (if applicable)

Formative Feedback

You will receive verbal feedback from me about your presentations. You will receive summative feedback on the exams following the conclusion of the module.

NTU Graduate Attributes/Competency Mapping

This course intends to develop the following graduate attributes and competencies (maximum 5 most relevant)

Attributes/Competency	Level
Communication	Basic
Decision Making	Basic
Problem Solving	Intermediate
Critical Thinking	Intermediate

Course Policy

Policy (Academic Integrity)

Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values. As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, collusion and cheating. If you are uncertain of the definitions of any of these terms, you should go to the academic integrity website for more information. On the use of technological tools (such as Generative AI tools), different courses / assignments have different intended learning outcomes. Students should refer to the specific assignment instructions on their use and requirements and/or consult your instructors on how you can use these tools to help your learning. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

Policy (General)

You are expected to complete all assigned pre-class readings and activities, attend all seminar classes punctually and take all scheduled assignments and tests by due dates. You are expected to take responsibility to follow up with course notes, assignments and course related announcements for seminar sessions they have missed. You are expected to participate in all seminar discussions and activities.

Policy (Absenteeism)

Absence from class without a valid reason will affect your overall course grade. Valid reasons include falling sick supported by a medical certificate and participation in NTU's approved activities supported by an excuse letter from the relevant bodies.
If you miss a lecture, you must inform the course instructor via email prior to the start of the class.

Policy (Others, if applicable)

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Last Updated By: Zhu Wenjun (Assoc Prof)