

管院碩士班(含碩專班)課程大綱

MS/MA Program Syllabus

系所 Department	國際財管 IMF	必選修 compulsory/elective	必修 Compulsory
課程名稱 Course title	新興金融商品之創新與運用 Innovation and Application of Emerging Financial Instruments	學分數 Credit(s)	3
課號 Course Code	5355010	全英文授課 English Taught (EMI)	是(Yes)
學年/學期 academic year/Semester	114-1 學期 Fall semester 2025	上課地點 Classroom	College of Management 103
講授教師 Instructor	鄧氏霞妝 Thi-Ha-Trang Dang (Lucy)	上課時間 Time	9:10am – 12:00pm Wednesday
教師辦公室&諮詢時間 Instructor office & office hour	College of Management 502 Tuesday 4:10 pm – 5:00 pm By appointment	教師聯絡資訊 Instructor Contact	Phone:05-2720411 ext 34138 Email: lucydang@ccu.edu.tw
助教 Teaching Assistant		助教 聯絡資訊 TA contact	Email:
先修課程 Pre-requisite courses	Financial Management 財務管理		
學習目標 Learning Objective	By the end of the course, students are expected to be able to: ● Describe key concepts and models related to financial derivatives, including option pricing, forwards, futures, and swaps. ● Recognize the structure and basic features of selected emerging financial instruments, such as ESG-linked bonds, crypto derivatives, and AI-assisted trading tools. ● Relate traditional derivative principles to the design and application of newer financial products. ● Identify potential benefits, risks, and challenges associated with the use of innovative financial instruments in real-world settings. ● Summarize and communicate essential features of an assigned emerging instrument through a structured presentation. ● Complete a written project that demonstrates familiarity with one emerging instrument and its connection to course concepts.		
課程概述 Course Descriptions	This course introduces students to both foundational derivative instruments and emerging innovations in modern financial markets. It covers core topics such as option pricing, futures, swaps, and structured products, while integrating newer financial instruments that involve ESG-linked bonds, crypto options, carbon credit derivatives, and AI-based trading products. Students will develop analytical skills		

		through theoretical modeling, applied homework, and case-based presentations. The course encourages critical thinking, data-driven inquiry, and real-world relevance by engaging students in independent research and project work. Emphasis is placed on bridging derivative theory with current market practices and technological advances. Students will actively participate through regular quizzes, in-class discussions, presentations, and a final project. To accommodate different learning speeds, the instructor may adjust the pace and content as needed to support student comprehension and progress. Note. The course schedule and activities are subject to change based on students' progress in learning. 這門課程介紹金融衍生性商品的基礎概念，同時涵蓋現代金融市場中的新興創新工具。課程內容包括選擇權定價、期貨、互換契約以及結構性金融商品等核心主題，並結合近期發展的金融工具，如 ESG 連結債券、加密貨幣選擇權、碳權衍生商品，以及基於人工智慧的交易產品。學生將透過理論建模、應用型作業及個案式簡報來培養分析能力。課程鼓勵批判性思考、數據導向的探究，以及與現實市場接軌的學習，並透過獨立研究與專題報告強化實務應用。課程強調將衍生性金融理論與當前市場實務與科技發展相結合。學生需透過定期測驗、課堂討論、簡報以及期末專題積極參與課程。為配合學生的學習進度與理解狀況，教師將視班級整體表現適時調整授課內容與進度。 備註：本課程之進度與活動將依學生學習狀況適度調整。			
對應 AOL 職能素養(AOL Competency)					
職能素養 3(Competency 3): 問題解決能力 Problem Solving Skills			職能素養 4(Competency 4): 全球視野 Global Perspective		
課程類別 Course Attributes	☐ 人文關懷課程(Humanities Caring) ☐ 競賽專題課程(Competition) ☒ 問題導向課程(Problem-solving) ☐ 專題導向課程(Project-based) ☒ 實作課程(Practice-based) ☐ 總整課程(Capstone)				
教材編選 Teaching materials	☒ 自製簡報(self-made PPTs) ☒ 課程講義(Teaching Notes) ☐ 自編教科書(self-made textbooks) ☐ 教學程式(programming) ☐ 自製教學影片(self-made video) ☐ 其他(Others)				
教學資源 Teaching Resources	☒ 課程網站(Website) ☐ 實習網站(Intern Web) ☒ 教材電子檔供下載(Downloadable Files)				
教科書/參考書 Textbooks/References	Chance, D. M. and Brooks, R. (2025). <i>An introduction to derivatives and risk management</i> . 8th ed., Cengage Learning.				
評量方式(請填百分比) Assessment	課堂參與 Participation	20%	個案討論 Case study	%	
	作業 Homework	%	專題 Project	20%	
	小考 Quiz	25%	其他 1 other ()	%	
	期中考 Midterm	20%	其他 2 other ()	%	
	期末考 Final	%	其他 3 other ()	%	
	報告 Presentation	15%	其他 4 other ()	%	

其他說明 Other description	Individual Work. This course values independent thinking and initiative. Students are expected to be proactive and take responsibility for their own learning. <i>Attendance and Participation 20%.</i> This component is divided into attendance (30%) and class participation & contribution (70%). This course may not be suitable for you if you frequently arrive late, leave early, engage only with your laptop or phone, or dismiss classmates' ideas. Active participation is essential for effective learning. Preparing before class enhances discussions and deepens understanding, so I encourage you to study in advance. Attendance (30%): Missing more than three classes results in a failing grade. One absence is permitted without penalty; thereafter, unexcused absences earn 0 points, while excused absences earn 50% credit with prior notification. Proxy attendance is strictly prohibited and will result in course failure. Participation (70%): Attendance alone does not constitute participation. Students are expected to engage actively through questions, comments, and discussion. Participation is assessed 50% by the quantity or frequency of contributions, and 50% by the quality of input in terms of relevance, depth, and clarity. <i>In-Class Quizzes 25%.</i> Students are required to complete assigned readings and homework before each class. Homework will be assigned weekly but does not need to be submitted. Instead, it will be checked through in-class quizzes or by being called to solve problems on the board. Short quizzes or exercises will be administered at the start or end of class to assess preparation and understanding of the material. Quizzes may be delivered in a mixed format (online or paper-based) and will be open-book, with no internet access allowed. No make-up quizzes or exercises will be provided. <i>Midterm Exam 20%.</i> The midterm will be conducted in class on November 5, 2025, as a paper-based, open-book, no-internet written test. It will cover materials from Weeks 1–8 and focus on conceptual understanding, the explanation of principles, and basic calculations. Attendance is required. Make-up exams are only allowed with valid documentation for extreme circumstances and may differ in format and difficulty. Attendance on the scheduled date is mandatory. No make-up exam will be allowed unless supported by documented evidence of extraordinary circumstances. Approved make-up exams may be more difficult and in a different format. Teamwork and Collaboration. <i>Thematic presentation 15%.</i> Students will give group presentations on an assigned emerging financial instrument. There are five presentations corresponding to the five designated topics in the course schedule, and each group will select one topic. Presentations must explain the instrument's structure, purpose, and real-world application, and demonstrate its connection to a core derivative concept covered in the previous week. Each presentation will last 20 minutes,
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followed by a 10-minute Q&A session. Slides must be well-organized, visually clear, and submitted via eCourse2 by 23:59 one week before the scheduled presentation, in PDF or PowerPoint format, using the required file naming convention: *Presentation_Group Number_Student Names* (e.g., *Presentation_Group 1_John and May*). The first page of the slides must also include the names of all group members. Late submissions will incur a 10% penalty.

In addition, groups must submit **a compiled reference file** documenting all sources used (please use credible sources). References should be provided in readable format (not just hyperlinks) and compiled into a single PDF with a table of contents and page numbers if multiple sources are included. The file should be named *Presentation Reference_Group Number_Student Names*.

The presentation grade will be based on a combination of instructor evaluation (50%), classmate evaluation (40%), and peer evaluation within the group (10%). Instructor and classmate assessments will emphasize four areas: content, clarity and analysis, delivery and engagement, and submission. Content is weighted most heavily (40% for the instructor, 45% for classmates) and focuses on the explanation of the instrument's structure, purpose, real-world application, and its linkage to a core derivative concept. Clarity and analysis (30% instructor, 35% classmates) reflect the accuracy, depth, and clarity of explanation, as well as the organization and visual quality of slides. Delivery and engagement (20% instructor and 20% classmates) assess the quality of presentation skills, audience interaction, and the ability to respond effectively during the Q&A session. Submission, which counts for 10% of the instructor's evaluation only, measures if slides and the reference files are in the required format.

Final Term Project 25%. Each student (or group, depending on class size) will complete a final project on an emerging financial instrument not covered among the five topics presented in regular class sessions. Topics must be submitted for instructor approval by Week 12 (11/26). Duplicate topics are not allowed. The project should demonstrate a strong understanding of the selected instrument, including its structure, function, theoretical linkage to core derivative concepts, and real-world application. Students are expected to demonstrate critical thinking and conduct research that extends beyond surface-level descriptions.

The term project grade is divided into three components:

Term Project Presentation (40%): A within-30-minute in-class presentation in Week 16 (December 24, 2025) followed by a 10-minute Q&A session. Presentations are graded by both the instructor (50%) and peers (50%). Attendance is mandatory; absence results in 0 for all group members. Slides must be submitted to eCourse2 by 11:59 p.m. December 17, 2025 (one week before the presentation date) in PDF or PowerPoint format. File name format: *Project Presentation_Group Number_Student names* (e.g., *Project Presentation_Group 1_John and May*). The first page of the slides must also include the names of all group members. Late submissions incur a 10% deduction.

Final Report (40%): In addition to the presentation, students must submit a written report (no more than four pages, excluding references) that is due at 23:59 of Week 17 (12/31). The report should include an introduction, an overview of the instrument, a theoretical connection, a real-world case or example, and a conclusion. Formatting, clarity, and compliance with instructions will be graded. The first page must list the names of all group members. The student's name and ID number must also appear on the first page of the document. Submit the report in PDF format via eCourse2 with the file name: *Project Report_Student Name_Student ID* or *Project Report_Group Number_Students names*.

Like the case of thematic presentation, groups must submit ***a compiled reference file*** documenting all sources used (please use credible sources). References should be provided in readable format (not just hyperlinks) and compiled into a single PDF with a table of contents and page numbers if multiple sources are included. The file should be named *Project Reference_Group Number_Student Names*.

Late submissions incur a 10% penalty.

Peer Evaluation (20%): All team members are expected to contribute equally. Peer assessments will be used to ensure fairness in grading.

Note: In light of learning effectiveness, all the content above is subject to change.

課程規劃表 Course Schedule

週次 Week	日期 Date	內容 Description	教材章節 Textbook	其他說明 Remark
1.	09/10	Course Introduction & Overview of Derivatives	Chapter 1	
2.	09/17	Structure of Derivatives Markets Intro to group topics & assignments	Chapter 2	
3.	09/24	Principles of Option Pricing	Chapter 3	
4.	10/01	The Binomial Option Pricing Model	Chapter 4	
5.	10/08	The Black Scholes Merton Model Presentation 1: Callable Bonds/ESG-Linked Bonds	Chapter 5	
6.	10/15	Basic Option Strategies	Chapter 6	
7.	10/22	Advanced Option Strategies Presentation 2: Crypto Options	Chapter 7	
8.	10/29	Principles of Pricing Forwards, Futures, and Options on Futures	Chapter 8	
9.	11/05	Mid-term exam		
10.	11/12	Futures Arbitrage Strategies	Chapter 9	
11.	11/19	Forward and Futures Hedging, Spread, and Target Strategies Presentation 3: Crypto Futures	Chapter 10	
12.	11/26	Swaps	Chapter 11	
13.	12/03	Interest Rate Forwards and Options Presentation 4: Carbon Credit Derivatives	Chapter 12	
14.	12/10	Advanced Derivatives and Strategies	Chapter 13	
15.	12/17	Financial Risk Management Techniques and Applications Presentation 5: AI-Based Trading Instruments	Chapter 14	
16.	12/24	Final term project presentation		
17.	12/31	Final term project report submission Self-study flexible week		
18.	01/06	Self-study flexible week		

NOTE: The course schedule and activities are subject to change based on students' learning progress.