國立中正大學課程大綱

National Chung Cheng University Syllabus

課號 course code		全英文授課 EMI	□是　　■否
課程名稱（中文） course name （Chinese）	衍生性金融商品		
課程名稱（英文） course name （English）	Financial Derivatives		
學年 academic Year /semester	114 學年第二學期 Spring semester 2026	上課地點 classroom	待定
學系（所） department	企業管理研究/Graduate Institute of Business Administration	必選修 required/selected	□必修　　■選修
教師 instructor	宋豪漳 Hao-Chang Sung Email: hcsung@ccu.edu.tw	學分 credit	3
助教 teaching assistant	詹峻翔	助教 email TA email	詹峻翔 ryanchan2002@gmail.com
先修科目或 先備能力 prerequisites	財務管理、 初等會計學（大學部課程） Undergraduate levels of Financial Management, Probability and Statistics, Basic Programming Skills		
課程概述 course descriptions	This course consists of two main parts: Futures and Options. **I. Futures** 　　The first part of the course provides an overview of derivative commodities and futures markets. It covers the fundamental concepts of futures contracts, trading systems, and market practices, including margining and settlement procedures. The course further examines the theoretical valuation of futures contracts, speculative trading activities, futures price analysis, and commonly used futures trading strategies. **II. Options** 　　The second part of the course introduces option markets and option contracts, with an emphasis on option pricing theory and basic option trading strategies.		

學習目標 learning objectives	主要學習目標 Major learning goal 目標 1：創新思考 LG1:Creative Thinking 次要學習目標 Minor learning goal 目標 2：溝通能力 LG2:Communication Skills
教科書及參考書 textbooks and reference	**Required:** **John C. Hull 2022 "Options, Futures, and Other Derivatives", 雙葉書廊, 11th Global Edition".** **Selected:** 1. 廖世仁, "期貨與選擇權"2016， 三民書局。 2. 李顯儀, "期貨與選擇權"2023， 第三版，全華圖書。 3. 陳威光 "期貨與選擇權: 金融創新個案"， 2022 年 第二版，新陸書局。 4. "期貨交易理論與實務", 2023, 證券期貨發展基金會出版。 5. 廖四郎、王昭文 "期貨與選擇權"， 2017 年 第五版，新陸書局。 6. 個案: 新光鋼鐵外匯避險策略 7. 台灣期貨交易所 線上虛擬交易所 　https://sim.taifex.com.tw/sim/ 　期交所虛擬交易所使用手冊 　https://sim.taifex.com.tw/sim/resc/201801171200/dl/Mobile_Guide.pdf 　6 個股票交易模擬網站 app 教學！2023 新手入門台灣美國股市投資推薦 　https://jerrywangtc.blog/stock-trade/ 「請尊重智慧財產權,不得非法影印教師指定之教科書籍」

教學要點概述	
教材編選 teaching materials	■ handouts ■ Textbook □ Others
教學方法 teaching method	■ Lecture ■ Group Discussion □ Acting Method □ Problem-oriented Learning □ Case Study □ Online Teaching □ Experimental Method □ Others
評量方法 evaluation	■ Class roll call 10% □ Quizzes 0% ■ Assignments 20% □ Programs 0% □ Internships 0% □ Projects 0% ■ Midterm exams 30% ■ Final exams 40% □ Final term presentation 40% □ Others 0%
教學資源 teaching resources	□ Course website ■ Teaching materials for download □ Internship website
與 SDGs 目標 的關聯 related to	□SDG 1 Ending Poverty □SDG 2 Eliminating Hunger □SDG 3 Health and Wellness ■SDG 4 Quality Education □SDG 5 Gender Equality □SDG 6 Clean Water and Sanitation

objectives of SDGs	□SDG 7 Affordable and Clean Energy □SDG 8 Decent Jobs and Economic Growth □SDG 9 Industrialization, Innovation and Infrastructure □SDG 10 Reducing Inequality □SDG 11 Sustainable Cities and Villages □SDG 12 Responsible Consumption and Production □SDG 13 Climate Action □SDG 14 Marine Ecology Conservation □SDG 15 Conservation of Terrestrial Ecology □SDG 16 Peace, Justice and a Sound System □SDG 17 Diverse Partnerships
教師 相關訊息 instructor's information	宋豪漳 Hao-Chang Sung E-mail: hsung@ccu.edu.tw 辦公室: 管理學院 room 421

每週課程內容 weekly scheduled contents
Week 1 (02/25): Course Introduction: Introduction to Derivatives
Week 2 (03/04): Basic Concepts of Futures
Week 3 (03/11): Hedging Strategies Using Futures (Hull, Ch.3)
Week 4 (03/18): Interest Rates (Hull, Ch.4)
Week 5 (03/25): Determination of Forward and Futures Prices (Hull, Ch.5)
Week 6 (04/01): Mechanics of Options Markets / Properties of Stock Options (Hull, Ch.10,11)
Week 7 (04/08): Holiday
Week 8 (04/15): Stock Price Behavior: Modeling and Simulation
Week 9 (04/22): Itô's Lemma and Numerical Methods I: Monte Carlo Simulation (Hull, Ch.14)
Week 10 (04/29): Midterm Exam
Week 11 (05/06): Numerical Methods II: Binomial Trees   (Hull, Ch.13)
Week 12 (05/13): The Black-Scholes-Merton Model (Hull, Ch.15)
Week 13 (05/20): Options on Stock Indices and Currencies (Hull, Ch.17)
Week 14 (05/27): The Greek Letters (Hull, Ch.19)
Week 15 (06/03): TAIFEX
Week 16 (06/10): Volatility Smiles (Hull, Ch.20)
Week 17 (06/17): **Final term Exam**
Week 18 (06/24): Self-studying
核心能力 core competencies

1. Target Audience

This course is designed for both undergraduate and master's-level students.

2. Teaching Methods

Instructor-Led Lectures: 70%

Classroom Discussions: 10%

Group Activities: 20%

3. Course Evaluation

(i) Class Participation, Attendance, and In-Class Performance (10%)

Regular attendance and active participation are required. Students must notify the instructor via email in advance if they are unable to attend class. In cases of emergency or illness, notification may be submitted after the absence.

(ii) Assignments (20%)

Students will complete five to six assignments during the course. Assignments consist of end-of-chapter exercises and selected programming tasks. All assignments must be submitted by the stated deadlines.

(iii) Midterm Examination (30%)

The midterm examination is graded on a 100-point scale. Preparation should include:

a. Reviewing questions, examples, and handouts discussed in class.

b. Reviewing assigned homework problems and the recommended readings.

(iv) Final Examination (40%)

The final examination is graded on a 100-point scale. Preparation should include:

a. Reviewing questions, examples, and handouts discussed in class.

b. Reviewing assigned homework problems and the recommended readings.