

Futures and Options

Course Information

Instructor: Chen, Hui-Chieh 陳慧捷

Class Time: Wednesday 13:00-16:00

Instructor Consultation: By appointment - jennyccu@ccu.edu.tw

Course Objective

This course introduces the key concepts and applications of financial derivatives, focusing on futures and options. Topics include derivative market structures, forward and futures pricing, hedging, speculation, risk management, option properties and trading strategies, binomial trees, the Black–Scholes–Merton model, and the Greek letters. The course also develops the mathematical foundations of derivatives pricing, including European option valuation and numerical methods for pricing American options.

Textbook

Hull, J. C., Fundamental of Futures and Options Markets, International edition (9th).

Grading Policy

Mid-term Exam 40%

Final Exam 60%

Schedule

Week 1: 9/9	Chapter 1: Introduction
Week 2: 9/16	Chapter 2: Futures Markets and Central Counterparties
Week 3: 9/23	Chapter 3: Hedging Strategies Using Futures
Week 4: 9/30	Chapter 5: Determination of Forward and Futures Prices
Week 5: 10/7	Chapter 9: Mechanics of Option Markets
Week 6: 10/14	Chapter 10: Properties of Stock Options
Week 7: 10/21	Chapter 11: Trading Strategies Involving Options (1/2)
Week 8: 10/28	Chapter 11: Trading Strategies Involving Options (2/2); Midterm Review
Week 9: 11/4	Mid-term Exam
Week 10: 11/11	No Class(Instructor Leave); a Make-up Class Will Be Arranged (老師事假, 將另行補課)
Week 11: 11/18	Chapter 12: Introduction to Binomial Trees
Week 12: 11/25	Chapter 13: Valuing Stock Options: The Black–Scholes–Merton Mode (1/2)

Week 13: 12/2	Chapter 13: Valuing Stock Options: The Black-Scholes-Merton Mode (2/2)
Week 14: 12/9	Chapter 17: The Greek Letters; Final Exam Review
Week 15: 12/16	Final Exam
Week 16: 12/23	Chapter 7: Swaps
Week 17: 12/30	<i>Flexible Learning Week</i>
Week 18: 1/6	<i>Flexible Learning Week</i>