



教學計劃表 Syllabus

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| 課程名稱(中文) Course Name in Chinese | 金融創新 | | 學年/學期 Academic Year/Semester | 113/2 |
| 課程名稱(英文) Course Name in English | Financial Innovation | | | |
| 科目代碼 Course Code | FIN_M0380 | 系級 Department & Year | 碩士 | 開課單位 Course-Offering Department |
| 財務金融學系 | | | | |
| 修別 Type | 選修 Elective | 學分數/時間 Credit(s)/Hour(s) | 3.0/3.0 | |
| 授課教師 Instructor | /呂進瑞 | | | |
| 先修課程 Prerequisite | /*衍生性金融商品 | | | |
| 課程描述 Course Description | | | | |
| Financial innovation aims to create new financial products using options, stocks, bonds, and other financial instruments. This course offers numerous analyses, studies, and discussions regarding financial innovations. We discuss how financial engineers develop some new ideas for designing financial tools. I hope the learners understand the methods, principles, pricing, applications, hedging, and trading strategies of these new financial tools. | | | | |
| 課程目標 Course Objectives | | | | |
| Use computers as learning aids to help understand the innovation, evaluation, and risk management of various financial products, and use derivative products to In daily life to solve financial problems. | | | | |
| 系專業能力 Basic Learning Outcomes | | | | 課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.'s Education Objectives |
| A | 具備財務金融的分析能力 | Understanding the financial analysis. | | ● |
| B | 具備企業財務管理專業能力 | Capabilities for business financial management. | | ● |
| C | 具備英語閱讀溝通協調等能力 | English reading ability of communication and coordination. | | ● |
| D | 具備獨立研究之技能，以進行財金議題研究 | Independent research skills to research financial issues. | | ○ |
| E | 具備個人投資理財能力 | Investment and financial management. | | ○ |
| F | 具備電腦程式運算及設計能力 | Ability of computer programs, algorithms and application. | | ○ |
| 圖示說明 Illustration : ● 高度相關 Highly correlated ○ 中度相關 Moderately correlated | | | | |
| 授課進度表 Teaching Schedule & Content | | | | |
| 週次 Week | 內容 Subject/Topics | | | 備註 Remarks |
| 1 | 1. Introduction to financial innovations | | | |
| 2 | 2. Valuation of Options by Binomial Models | | | |
| 3 | 2. Programming coding for the Black and Scholes model | | | |
| 4 | 3. Programming coding for the Monte Carlo simulation | | | |

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|----|---|--|
| 5 | 4. Programming coding for the Binomial model | |
| 6 | 5. Innovation in Options - Brick-based options | |
| 7 | 6. Innovation in Options - Brick-based options | |
| 8 | 7. Innovation in Options - Path Dependent Options | |
| 9 | 期中考試週 Midterm Exam | |
| 10 | 7. Innovation in Options - Path Dependent Options | |
| 11 | 8. Innovation in Options - Time Dependent Options | |
| 12 | 9. Innovation in Options - Multi-asset options | |
| 13 | 10. Innovation in Bonds | |
| 14 | 11. Innovation in Corporate Bonds | |
| 15 | 12. Structured Notes - ELN | |
| 16 | 13. Structured Notes - HYL | |
| 17 | 期末考試週 Final Exam | |
| 18 | 14. Innovation in Trading Strategies | |

教學策略 Teaching Strategies

- 課堂講授 Lecture
 分組討論 Group Discussion
 參觀實習 Field Trip
- 其他 Miscellaneous:

教學創新自評 Teaching Self-Evaluation

創新教學 (Innovative Teaching)

- 問題導向學習 (PBL)
 團體合作學習 (TBL)
 解決導向學習 (SBL)
- 翻轉教室 Flipped Classroom
 磨課師 Moocs

社會責任 (Social Responsibility)

- 在地實踐 Community Practice
 產學合作 Industry-Academia Cooperation

跨域合作 (Transdisciplinary Projects)

- 跨界教學 Transdisciplinary Teaching
 跨院系教學 Inter-collegiate Teaching

- 業師合授 Courses Co-taught with Industry Practitioners

其它 other:

學期成績計算及多元評量方式 Grading & Assessments

| 配分項目 Items | 配分比例 Percentage | 多元評量方式 Assessments | | | | | | | |
|----------------------------------|--------------------|--------------------|----------|----------|----------|----------|----------|----------|-----------|
| | | 測驗 會考 | 實作 觀察 | 口頭 發表 | 專題 研究 | 創作 展演 | 卷宗 評量 | 證照 檢定 | 其他 |
| 平時成績 General Performance | 10% | | | ✓ | | | | | 出席與課堂討論 |
| 期中考成績 Midterm Exam | 30% | ✓ | | | | | | | |
| 期末考成績 Final Exam | 40% | ✓ | | | | | | | |
| 作業成績 Homework and/or Assignments | 20% | | ✓ | ✓ | | | | | 課後作業與課堂報告 |
| 其他 Miscellaneous (_____) | | | | | | | | | |

評量方式補充說明

Grading & Assessments Supplemental instructions

教科書與參考書目 (書名、作者、書局、代理商、說明)

Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

No textbook. I will submit my PPT data to the e-learning system.

課程教材網址(含線上教學資訊, 教師個人網址請列位於本校內之網址)

Teaching Aids & Teacher's Website(Including online teaching information.

Personal website can be listed here.)

無

其他補充說明 (Supplemental instructions)

無