# 朝陽科技大學 097學年度第2學期教學大綱
# Financial Engineering 財務工程

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| **當期課號** | 7024 | **Course Number** | 7024 |
| **授課教師** | 朱香蕙 | **Instructor** | CHU,HSIANG HUI |
| **中文課名** | 財務工程 | **Course Name** | Financial Engineering |
| **開課單位** | 財務金融系碩士班一A | **Department** | |
| **修習別** | 選修 | **Required/Elective** | Elective |
| **學分數** | 3 | **Credits** | 3 |
| **課程目標** | 概略而言，舉凡金融商品的設計、組合、分解、定價、推廣與通路的建立等，均是「財務工程」的範疇。本課程對於財務工程相關議題，先闡述數學及統計原理， 討論其實際應用意義，幫助學生對此領域知的了解。 | **Objectives** | Financial engineering involves the design, the development, and the implementation of innovative financial instruments and process, and the formulation of creative solutions to problems in finance. For the related topics about financial engineering, we first involve the fundamental theories and methods, and then discuss their implementation in practical applications. |
| **教材** | Klebaner, F. C. (1998) Introduction to stochastic calculus with applications. London: Imperial College.<br>Wilmott, P., (1998) Derivatives: The Theory and Practice of Financial Engineering. John Wiley & Sons.<br>S. Neftci, (1996) An introduction to the mathematics of financial derivatives, Academic Press.<br>J. Hull, (2003) Options, Futures and Other Derivative Securities, 5th edition, Prentice Hall.<br>相關論文期刊<br>財務工程與金融計算，張焯然著 | **Teaching Materials** | Klebaner, F. C. (1998) Introduction to stochastic calculus with applications. London: Imperial College.<br>Wilmott, P., (1998) Derivatives: The Theory and Practice of Financial Engineering. John Wiley & Sons.<br>S. Neftci, (1996) An introduction to the mathematics of financial derivatives, Academic Press.<br>J. Hull, (2003) Options, Futures and Other Derivative Securities, 5th edition, Prentice Hall.<br>Related papers |
| **成績評量方式** | 平時成績 30%<br>期中報告 30%<br>期末考試 40% | **Grading** | Participation 30%<br>Mid Term report 30%<br>Final 40% |
| **教師網頁** | _ | | |
| **教學內容** | 1. 財務數學介紹<br>2. 二元數評價模型<br>3. Black-Scholes 模型<br>4. 新奇選擇權<br>5. 利率衍生性商品<br>6. 相關論文期刊 | **Syllabus** | 1. Financial mathematics<br>2. Binomial Trees<br>3. Black-Scholes Model<br>4. Exotic Options<br>5. Interest Rate Derivatives<br>6. Related papers |

尊重智慧財產權，請勿非法影印。