朝陽科技大學 097學年度第2學期教學大綱
Advanced Financial Mathematics 高等財務數學

當期課號	7013	Course Number	7013
授課教師	林益倍	Instructor	LIN,YIH BEY
中文課名	高等財務數學	Course Name	Advanced Financial Mathematics
開課單位	財務金融系碩士班一A	Department	
修習別	必修	Required/Elective	Required
學分數	3	Credits	3
課程目標	本課程主要目標是討論管理數學的基本觀念，希望對學生研讀財務篤水其他相關領域的文章與知識能有所幫助，並達成下列子目標：(1)提升學生建構研究主題的能力。(2)幫助學生對現行財務領域知的了解。(3)提升學生對相關專業知識與文獻的探討能力。	Objectives	The primary objective of the course is to discuss ideas in managerial mathematics. I hope that doing this will help you meet several othe objectives, namely, (1) Improve your ability to formulate viable study topics.(2) Improve your understanding of current areas of studing in finance.(3) Improve your ability to discuss and referee the work of others.
教材	本課程以中文授課, 教材以老師手搞爲主,補助教材可參考: ˙Huang and Litzenberger (1988): Foundations for Financial Economics.(台大財金所) ˙Mikosch (1998)Elementary stochastic calculus with finance in view, (中研院) ˙Nielsen(1999)Pricing and Hedging of Derivative Securities, (台大數學系) ˙Duffie (2001) Dynamic asset pricing theory 3rd edition. (台大財金所)	Teaching Materials	˙Huang and Litzenberger (1988): Foundations for Financial Economics. ˙Mikosch (1998)Elementary stochastic calculus with finance in view, ˙Nielsen(1999)Pricing and Hedging of Derivative Securities, ˙Duffie (2001) Dynamic asset pricing theory 3rd edition.
成績評量方式	期中考30%, 期末考30%, 平時成績40%	Grading	1. Class participation and presentation are very important factors in the final grading. 2. Some comprehensive quizzes are required in this course. 3.Midterm 30%, Final 30% and Class participation 40%.
教師網頁	_		
教學內容	本課程主要目的是提高同學數理基礎, 幫助同學看得懂財務金融專業知識的重要文獻, 以增加同學對財務金融的興趣, 本課程內容包括 1. Preference Representation 2. Efficient Frontier 3. The Arbitrage Approach 4. Stochastic process 5. Ito's Lemma 6. Stochastic Calculus 7. Martingales 8. Black-Scholes-Merton Model	Syllabus	The primary objective of the course is to discuss ideas in managerial mathematics. I hope that doing this will help you meet several other objectives, namely, (1) Improve your ability to formulate viable study topics. (2) Improve your understanding of current areas of studying in finance. (3) Improve your ability to discuss and referee the work of others. Contents: *1. Preference Representation 2. Efficient Frontier 3. The Arbitrage Approach 4. Stochastic process 5. Ito's Lemma 6. Stochastic Calculus 7. Martingales 8. Black-Scholes-Merton Model

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