



課 綱 Course Outline

國際經濟研究所碩士班

中文課程名稱 Course Name in Chinese	財務工程				
英文課程名稱 Course Name in English	Financial Engineering				
科目代碼 Course Code	IIE_54800	班 別 Degree	碩士班 Master' s		
修別 Type	選修 Elective	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite	none				
課程目標 Course Objectives					
This course deals with portfolios of financial assets such as stocks and bonds. It explores the basic principles underlying rational portfolio choice and what these mean for prices determined in the marketplace					
課程大綱 Course Outline					
1、Introduction to financial engineering 2、The institutional environment of financial engineering:financial markets 3、Multiple project selection with limited resources 4、Efficient portfolio construction 5、Choosing debt policy 6、Hedging stock/bonds/futures with options 7、Finding arbitrages 8、Using options to evaluate capacity decisions 9、Hedging streams of cash flows over time 10、Constructing asset and liability matches 11、Constructing synthetic securities to meet financial objectives 12、Models of Asset Price Behavior 13、The Black-Scholes Analysis 14、Risk Management of Options Positions					
資源需求評估（師資專長之聘任、儀器設備的配合．．．等） Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)					
課程要求和教學方式之建議 Course Requirements and Suggested Teaching Methods					
本課程以講授方式進行，輔以課堂討論					
其他 Miscellaneous					