朝陽科技大學 098學年度第1學期教學大綱
Time Series Analysis 時間序列分析

當期課號	7025	**Course Number**	7025
授課教師	許英麟	**Instructor**	HSU,YING LIN
中文課名	時間序列分析	**Course Name**	Time Series Analysis
開課單位	財務金融系碩士班二A	**Department**	
修習別	選修	**Required/Elective**	Elective
學分數	3	**Credits**	3
課程目標	本課程主要介紹分析時間序列資料的基本理論與應用方法。內容有穩定序列的自相關函數(ACF)、偏自相關函數(PACF)與ARMA模型的選模方法，至於非穩定序列，其數學性質也將有所討論。同時，對於非線性的時間序列，如ARCH，GARCH等，也將一併介紹。最後，將所學方法應用在分析實際財金資料。	**Objectives**	This course would give the basic theory and methods for application about analyzing time series data. The content include auto-correlation function , partial auto-correlation function and model selection problem of ARMA model, of stationary process. As non-stationary series, its mathematical properties would also be discussed. The option part is about nonlinear time series model, like ARCH and GARCH models. Finally, real financial data sets are analyzed by using our methods.
教材	Textbook: "Analysis of Financial Time Series", 2005, Tsay, R.S., Wiley Reference: "時間數列分析導論", 1995, 吳柏林, 華泰	**Teaching Materials**	Textbook: "Analysis of Financial Time Series", 2005, Tsay, R.S., Wiley Reference: "時間數列分析導論", 1995, 吳柏林, 華泰
成績評量方式	作業30% 期中考30% 期末報告40%	**Grading**	Homework 30%; Midterm 30%; Final report 40%
教師網頁	http://www.amath.nchu.edu.tw/~ylhsu		
教學內容	1. 線性時間序列分析(ARIMA)以及應用 2. ARCH模型 3. 非線性模型以及應用	**Syllabus**	1. Linear time series analysis (ARIMA) and its applications 2. ARCH models 3. Nonlinear models and their applications