朝陽科技大學 092學年度第1學期教學大綱
Time Series Analysis 時間序列分析

當期課號	7131	**Course Number**	7131
授課教師	顏盟□	**Instructor**	YEN,MENG FENG
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		**Teaching Materials**	lectures plus exercises and computer sessions on WinRATS
成績評量方式		**Grading**	computer sessions: 30% mid-term exam: 30% final exam: 40%
教師網頁	_		
教學內容	看不懂英文教學大綱者請勿修此課,課程講義及參考書無中文版	**Syllabus**	This module will mainly involve the following topics: univariate time series models such as AR,MA,ARMA, and ARIMA models; simultaneous equations models; VARs; the GARCH type of models; some techniques in simulations and data analysis like the Monte Carlo method, and bootstrapping methods; data analysis using the RATS package. Also note that the WinRATS-5.0 package has been installed in many of the PCs in the computer room for postgraduate students of finance department. It is strongly recommended that you read the first chapter of the user's guide before the start of this course. 'Getting Started' booklet and hard copies of USER'S GUIDE and REFERENCE MANUAL are available from the finance department office via Ms.黃九倫. USER'S Guide is also available from the online help of the installed package. You will be required to programme up the main experiment in your thesis in WinRATS, and submit it at the end of this course.