

朝陽科技大學 093學年度第1學期教學大綱  
Time Series Analysis 時間序列分析

當期課號	7118	Course Number	7118
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	<p>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。</p>	Objectives	<p>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.</p>
教材	<p>Textbook: "Analysis of Financial Time Series", 2002, Tsay, R.S., John Wiley &amp; Sons Reference: "Introduction to Time Series and Forecasting", 1996, Brockwell and Davis, Springer-Verlag</p>	Teaching Materials	
成績評量方式		Grading	
教師網頁	-		
教學內容	<ol style="list-style-type: none"> <li>1. 線性時間序列分析以及應用</li> <li>2. ARCH模型</li> <li>3. 非線性模型以及應用</li> <li>4. 連續時間模型以及應用</li> <li>5. 多變量時間序列模型</li> </ol>	Syllabus	<ol style="list-style-type: none"> <li>1. Linear time series analysis and its applications</li> <li>2. ARCH models</li> <li>3. Nonlinear models and their applications</li> <li>4. Continuous-time models and their applications</li> <li>5. Multivariate time series analysis and its applications</li> </ol>

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