



課 綱 Course Outline
經濟學系碩士班國際組

中文課程名稱 Course Name in Chinese	計量經濟分析(二)				
英文課程名稱 Course Name in English	Econometric Analysis (II)				
科目代碼 Course Code	EC_M7800	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					
課程目標 Course Objectives					
Econometric Analysis (II) is a required course in the Ph.D. program. Ph.D. students must acquire some basic trainings in econometrics to conduct empirical analysis and forecasting based on economic theory. This course is also a distinguishing characteristic in the Ph.D. program.					
系教育目標 Dept.'s Education Objectives					
1	培育具學術深造潛力及實務發展能力的優秀經濟人才。 Educate postgraduate students with professional knowledge and empirical skills for further academic research.				
系專業能力 Basic Learning Outcomes				課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.'s Education Objectives	
A	數理分析能力：通曉經濟學的進階理論技巧，應用數學與賽局解決經濟議題的能力。 Mathematical analysis skills: Mastering in intermediate application of mathematical theories and game theory in analyzing economic issues.				
B	實證經濟分析能力：通曉經濟學的進階實證技巧，善用資訊科技進行資訊蒐集、資料統計與計量分析。 Empirical analysis skills: Mastering in intermediate application of statistics and econometrics in data collection and examination.				●

C	微觀經濟之闡釋能力：通曉進階個體經濟學相關的理論與應用。 Microeconomic perspective: Thorough understanding of intermediate microeconomic theories and relevant application.	
D	宏觀經濟之闡釋能力：通曉進階總體經濟學相關的理論與應用。 Macroeconomic perspective: Thorough understanding of intermediate macroeconomic theories and relevant application.	
E	自我調整適應社會之能力：具備適應現代社會的學養以及就業能力。 Employment opportunities: capabilities of working on important policy and decision challenges in business and government	○
F	溝通表達能力：思路清晰，有能力與人溝通並撰寫進階專業研究報告。 Communication skills: Having a clear mind and capability in writing an intermediate professional academic report.	

圖示說明 Illustration : ● 高度相關 Highly correlated ○ 中度相關 Moderately correlated

課程大綱
Course Outline

1. Nonlinear Regression Models
2. Nonspherical Disturbances: Generalized Linear Regression Model
3. Heteroscedasticity
4. Autocorrelation
5. Generalized Method of Moments Estimation
6. Panel Data
7. Computation-Intensive Methods
Monte Carlo Methods and Bootstrapping
8. Quantile Regression

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

其他
Miscellaneous