國立東華大學

教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	計量經濟分析（四）			學年/學期 Academic Year/Semester	102/1
課程名稱(英文) Course Name in English	Econometric Analysis (IV)				
科目代碼 Course Code	EC__50350	系級 Department & Year	碩士	開課單位 Course-Offering Department	經濟學系
修別 Type	選修 Elective	學分數/時間 Credit(s)/Hour(s)	3.0/3.0		
授課教師 Instructor	/陳建福				
先修課程 Prerequisite					

課程描述 Course Description

This aim of this course is to provide the student a solid foundation of {\bf advanced time series models}
that are currently being used in the empirical finance and macroeconomics. The course covers threshold autoregression model, smooth transition model, nonlinear unit root tests, threshold cointegration,
structural change model,
nonlinear cointegration, multivariable GARCH model, and panel smooth transition model.

課程目標 Course Objectives

建立學生從事進階經濟學實證研究之基礎。

	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 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 application of statistics and econometrics in data collection and examination	●
C	微觀經濟之闡釋能力：通曉個體經濟學相關的理論與應用。Microeconomic perspective: Thorough understanding of microeconomic theories and relevant application	
D	宏觀經濟之闡釋能力：通曉總體經濟學相關的理論與應用。Macroeconomic perspective: Thorough understanding of macroeconomic theories and relevant application	
E	樂活能力：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 governmen	
F	溝通表達能力：思路清晰，有能力與人溝通並撰寫專業研究報告。Communication skills: Having a clear mind and capability in writing a professional academic report	●

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

授 課 進 度 表 Teaching Schedule & Content

週次Week	內容 Subject/Topics	備註Remarks
1	Introduction	

2	Univariate GARCH Mode	
3	Univariate GARCH Model	
4	Threshold Model	
5	Threshold Model	
6	Threshold Mode	
7	Nonlinear Unit Roots Test	
8	Nonlinear Unit Roots Test	
9	期中考試週 Midterm Exam	
10	Cointegration with Structural Change	
11	Cointegration with Structural Change	
12	Cointegration with Structural Change	
13	Nonlinear Cointegration	
14	Nonlinear Cointegration	
15	Multivariate Conditional Heteroscedastic Models	
16	Multivariate Conditional Heteroscedastic Models	
17	Multivariate Conditional Heteroscedastic Model	
18	期末考試週 Final Exam	

教 學 策 略 Teaching Strategies

☑ 課堂講授 Lecture ☐ 分組討論Group Discussion ☐ 參觀實習 Field Trip

☐ 其他Miscellaneous:

學期成績計算及多元評量方式 Grading & Assessments

配分項目 Items	配分比例 Percentage	多元評量方式 Assessments							
		測驗會考	實作觀察	口頭發表	專題研究	創作展演	卷宗評量	證照檢定	其他
平時成績 General Performance									
期中考成績 Midterm Exam									
期末考成績 Final Exam									
作業成績 Homework and/or Assignments									
其他 Miscellaneous (Classroom presentation & term paper)	100%								

評量方式補充說明 Grading & Assessments Supplemental instructions

教科書與參考書目（書名、作者、書局、代理商、說明）
Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

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There is no single textbook for the course but the following references are useful.
  \begin{enumerate}
  \item Brooks, Chris (2002), {\em Introductory Econometrics for Finance}, Cambridge University
Press.（新月書局代理）
  \item Enders, W. (2010), {\em Applied Econometric Time Series}, 3nd Edition, Wiley. （雙葉書局代理）
  \item Franses, Philip Hans and Dick van Dijk (2000), {\em Nonlinear Time Series Models in
        Empirical Finance}, UK: Cambridge University Press.
  \item Hamilton, J.~D. (1994), {\em Time Series Analysis}, NJ: Princeton University Press.
  \item Tsay, Ruey S. (2010), {\em Analysis of Financial Time Series}, 3rd edition, Wiley.（新月書局
代理）
  \end{enumerate}
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課程教材網址（教師個人網址請列在本校內之網址）
Teaching Aids & Teacher's Website (Personal website can be listed here.)

其他補充說明 (Supplemental instructions)