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國立東華大學

教學計劃表　Syllabus

課程名稱(中文) Course Name in Chinese	計量經濟理論			學年/學期 Academic Year/Semester	108/1
課程名稱(英文) Course Name in English	Econometric Theory				
科目代碼 Course Code	EC__50450	系級 Department & Year	碩士	開課單位 Course-Offering Department	經濟學系
修別 Type	必修 Required	學分數/時間 Credit(s)/Hour(s)	3.0/3.0		
授課教師 Instructor	/羅德芬				
先修課程 Prerequisite					

課程描述　Course Description

This is the first graduate-level course in theoretical econometrics. It covers statistical topics that are of particular interest in economics and related fields. Basically, it will cover linear regression analysis of single-equation and multiple-equation models. This course is intended as an introduction to econometric methods, and to be a useful prerequisite to further study in theoretical econometrics or applied econometrics.

The prerequisites for the course are a basic knowledge of statistics and of matrix algebra. Students should have had at least one semester course in statistics using calculus. There is no specific course prerequisite in matrix algebra, but some familiarity with matrices and the ability and willingness to manipulate them algebraically are required.

For each topic, we will have some take-home exercises for your own practice. Students are required to do those exercises by themselves. Discussion between students is allowed and encouraged, but just copying others' solutions without any self-thinking will be not helpful to the understanding of econometric topics. The solutions to take-home exercises will be announced in the class one week after take-home exercises.

課程目標　Course Objectives

為本所必修課程之一，培養學生具備進行實證研究所需的統計方法與能力。

	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	樂活能力：具備適應現代社會的進階學養以及就業能力。Employment opportunities: Capabilities of intermediate 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

授 課 進 度 表 Teaching Schedule & Content

週次Week	內容 Subject/Topics	備註Remarks
1	Introduction to Econometrics and Economic Data	
2	The Simple Regression Model	
3	The Simple Regression Model (Cont.)	
4	The Estimation of Multiple Regression Analysis	
5	The Estimation of Multiple Regression Analysis (Cont.)	
6	The Inference of Multiple Regression Analysis	
7	The Inference of Multiple Regression Analysis (Cont.)	
8	Multiple Regression Analysis with OLS Asymptotics	
9	Midterm Exam	
10	Multiple Regression Analysis with OLS Asymptotics (Cont.)	
11	Further Issues on the Multiple Regression Model	
12	Further Issues on the Multiple Regression Model (Cont.)	
13	Multiple Regression Model with Qualitative Variables	
14	Multiple Regression Model with Qualitative Variables (Cont.)	
15	Heteroskedasticity	
16	More on Specification and Data Issues	
17	More on Specification and Data Issues (Cont.)	
18	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:

教 學 創 新 自 評 Teaching Self-Evaluation

創新教學(Innovative Teaching)

☐ 問題導向學習(PBL) ☐ 團體合作學習(TBL) ☐ 解決導向學習(SBL)

☐ 翻轉教室 Flipped Classroom ☐ 磨課師 Moocs

社會責任(Social Responsibility)

☐ 在地實踐Community Practice ☐ 產學合作 Industy-Academia Cooperation

跨域合作(Transdisciplinary Projects)

☐ 跨界教學Transdisciplinary Teaching ☐ 跨院系教學Inter-collegiate Teaching

☐ 業師合授 Courses Co-taught with Industry Practitioners

其它 other:

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	10%		✓						
期中考成績 Midterm Exam	45%	✓							
期末考成績 Final Exam	45%	✓							
作業成績 Homework and/or Assignments									
其他 Miscellaneous (_____)									

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.)

Recommended Supplementary Texts:

Wooldridge, J. M. (2012). Introductory econometrics: A modern approach (5th Edition). Canada: Cengage Learning.

Greene, W. H. (2012). Econometric analysis (Seventh Edition (International Edition) ed.). Essex, England: Pearson Education Limited.

Verbeek, M. (2004). A guide to modern econometrics (Second Edition ed.): John Wiley & Sons, Ltd.

Wooldridge, J. M. (2002). Econometric analysis of cross section and panel data. Cambridge, Massachusetts, London, England: The MIT Press.

課程教材網址(含線上教學資訊,教師個人網址請列位於本校內之網址)
Teaching Aids & Teacher's Website(Including online teaching information. Personal website can be listed here.)

其他補充說明 (Supplemental instructions)