



## 教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	計量經濟分析(一)		學年/學期 Academic Year/Semester	114/1
課程名稱(英文) Course Name in English	Econometric Analysis ( I )			
科目代碼 Course Code	IIE_54600	系級 Department & Year	碩士	開課單位 Course-Offering Department
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				
<b>課程描述 Course Description</b>				
<p>This is the first graduate-level course in theoretical econometrics. It covers statistical topics that are of particular interest in economics and related fields. Specifically, this course will cover linear regression analysis for both single-equation and multiple-equation models. This course is intended as an introduction to econometric methods, and is designed to be a useful prerequisite for further study in theoretical and applied econometrics.</p> <p>To enroll in this course, students should have a basic understanding of statistics, with at least one semester of calculus-based statistics completed. While there are no specific prerequisites in matrix algebra, some familiarity with matrices and the ability to manipulate them algebraically will be beneficial.</p> <p>For each topic covered, we will provide take-home exercises for practice. Students are required to complete these exercises independently. While discussion among students is encouraged, simply copying others' solutions without engaging in critical thinking will not enhance your understanding of the econometric concepts. The solutions to the take-home exercises will be announced in class one week after the exercises are assigned.</p>				
<b>課程目標 Course Objectives</b>				
<p>為本所必修課程之一，本所學生必須具有計量經濟學的訓練才能，根據經濟理論作實證分析，預測等分析，為本所特色之一。</p>				
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

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	Statistical Review	
3	Statistical Review (Cont.)	
4	The Simple Regression Model	
5	The Simple Regression Model (Cont.)	
6	The Estimation of Multiple Regression Analysis	
7	The Estimation of Multiple Regression Analysis (Cont.)	
8	The Inference of Multiple Regression Analysis	
9	Midterm Exam	
10	The Inference of Multiple Regression Analysis (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	More on Specification and Data Issues	
15	Final Exam	
16	Holiday	
17	Holiday	
18	Flexible Arrangement	

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 Industry-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:

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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(含出缺席) General Performance (Attendance Record)	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.)									
NDHU e-Learning: <a href="https://elearn4.ndhu.edu.tw/moodle/course/view.php?id=12977">https://elearn4.ndhu.edu.tw/moodle/course/view.php?id=12977</a>									
其他補充說明 (Supplemental instructions)									