



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 | 109/1 |
| 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 | /陳建福 | | | |
| 先修課程 Prerequisite | | | | |
| 課程描述 Course Description | | | | |
| <p>This course is the first course in econometrics at the graduate level. We will cover the basic and modern methods of econometric theory. The course materials will provide the students a foundation for empirical methods in economics. The course is based primarily on the textbook "Econometric Analysis", by W. Greene.</p> <p>It is assumed that students have taken an undergraduate econometrics course. However, students who have not taken an econometrics course at undergraduate may need to read an undergraduate-level econometrics book written by Wooldridge or Gujarati and Porter. In this course students must learn how to use R or other packages (for example, Stata, EViews, GAUSS, MATLAB, RATS, SAS, or TSP) to replicate examples in the textbook.</p> | | | | |
| 課程目標 Course Objectives | | | | |
| <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。A. 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 | |
| 2 | Stata Programming | |
| 3 | Stata Programming | |
| 4 | Matrix Algebra | |
| 5 | Probability Theory | |
| 6 | Statistical Inference | |
| 7 | Classical Multiple Linear Regression Model | |
| 8 | Classical Multiple Linear Regression Model | |
| 9 | 期中考試週 Midterm Exam | |
| 10 | Classical Multiple Linear Regression Model | |
| 11 | Classical Multiple Linear Regression Model | |
| 12 | Binary Variables in Regression and Structural Change | |
| 13 | Binary Variables in Regression and Structural Change | |
| 14 | Specification Tests and Model Selection | |
| 15 | Instrumental Variable Estimation | |
| 16 | Instrumental Variable Estimation | |
| 17 | Nonspherical Disturbances | |
| 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:

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:

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 | 40% | ✓ | | | | | | | |
| 期末考成績 Final Exam | 40% | ✓ | | | | | | | |
| 作業成績 Homework and/or Assignments | 20% | | | | | | | | |
| 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.)

Greene, William H. (2012), Econometric Analysis}, 7th edition, Prentice Hall (雙葉書局代理)

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)