

國立中山大學 109學年度第1學期 課程教學大綱

National Sun Yat-sen University 109Academic year1st Semester Course syllabus

中文名稱 Course name(Chinese)	計量經濟學（一）			課號 Course Code	ECON502
英文名稱 Course name(English)	ECONOMETRICS (I)				
課程類別 Type of the course	講授類	必選修 Required/Selected	必修	系所 Dept./faculty	經濟學研究所 碩士班
授課教師 Instructor	李慶男			學分 Credit	3

因應嚴重特殊傳染性肺炎(武漢肺炎)，倘若後續需實施遠距授課，授課方式調整如下：

- ☒ 同步遠距【透過網路直播技術，同時進行線上教學，得採Microsoft Teams、Adobe connect等軟體進行】
- ☐ 同步遠距含錄影【透過網路直播技術，同時進行線上教學並同時錄影，課程內容可擇日再重播，得採Microsoft Teams、Adobe connect等軟體進行】
- ☐ 非同步遠距【課堂錄影或錄製數位教材放置網路供學生可非同時進行線上學習，得採EverCam、PPT簡報錄影、錄音方式進行】
- ☐ 實作類課程，經評估無法採遠距課程教學，後續復課後密集補課

★遠距教學軟體操作說明連結

因應嚴重特殊傳染性肺炎(武漢肺炎)，倘若後續需實施遠距授課，評分方式調整如下：

- 1.homework：30%
- 2.mid-term exam：30%
- 3.final exam：40%

課程大綱 Course syllabus

This is a course of basic econometrics. Econometrics is concerned with the systematic study of economic phenomena using observed data. We will mainly concern on the treatment of parametric modeling. (Therefore, there is a field called Nonparametric Econometrics—see Pagan and Ullah, 1999, Nonparametric Econometrics)

To study the econometrics parametrically, we will first discuss regression analysis. The regression analysis put some variables (especially economic variables) to be some function (linear or nonlinear) of other economic variables and verse vise. These constitute the study of multiple regression and simultaneous equations model.

On the other hand, time series analysis of econometrics, we regard the economics variable is coming from some stochastic mechanism of her own past and new innovation (unit variable time series analysis) and even stochastic function of other variables past value and innovation (vector time series analysis). These two views of econometrics is now somewhat merging. (See Granger, 2001, Macro Econometrics – Past and Future, Journal of Econometrics, 100).

Extension of Basic Model
Structure Change

課程目標 Objectives

Our object in this course is to study the regression analysis of econometrics. With this statistical background, I hope you will have the basic skill to read modern therical Journal article.

授課方式 Teaching methods

課堂上課討論，電腦上機。

評分方式〔評分標準及比例〕Evaluation (Criteria and ratio)等第制單科成績對照表 [letter grading reference](#)

1.homework : 30%
2.mid-term exam : 30%
3.final exam : 40%

參考書/教科書/閱讀文獻 Reference book/ textbook/ documents

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Textbooks: 1. Greene, W. H. (2000), Econometric Analysis, 4th Edition, Prentice Hall. (Required)

每週課程內容及預計進度 Weekly scheduled progress

週次	日期	授課內容及主題
Week	Date	Content and topic
1	2020/09/06~2020/09/12	Matrix Algebra
2	2020/09/13~2020/09/19	Matrix Algebra
3	2020/09/20~2020/09/26	Matrix Algebra
4	2020/09/27~2020/10/03	Probability Theory
5	2020/10/04~2020/10/10	Probability Theory
6	2020/10/11~2020/10/17	Statistical inference
7	2020/10/18~2020/10/24	Statistical inference
8	2020/10/25~2020/10/31	Ordinary Least squared estimation under ideal condition.
9	2020/11/01~2020/11/07	Ordinary Least squared estimation under ideal condition.
10	2020/11/08~2020/11/14	Mid-term examination
11	2020/11/15~2020/11/21	Linear Regression that violates ideal condition: (Greene, Ch.8, 1, 12, 13) (*) (i). Stochastic Regressor
12	2020/11/22~2020/11/28	Linear Regression that violates ideal condition: (Greene, Ch.8, 11, 12, 13) (*) (i). Stochastic Regressor
13	2020/11/29~2020/12/05	Linear Regression that violates ideal condition: (Greene, Ch.8, 11, 12, 13) (*) (i). Stochastic Regressor
14	2020/12/06~2020/12/12	Linear Regression that violates ideal condition: (Greene, Ch.8, 11, 12, 13) (*) (i). Stochastic Regressor
15	2020/12/13~2020/12/19	Panel Data Models (Greene, Ch14)
16	2020/12/20~2020/12/26	Panel Data Models (Greene, Ch14)

17	2020/12/27~2021/01/02	Seeming Uncorrelated Regression Model (SURE): (Greene, Ch.15)
18	2021/01/03~2021/01/09	Final Examination

課業討論時間 Office hours

時段1 Time period 1:
 時間 Time：星期一15:00~17:00
 地點 Office/Laboratory：社SS 4037
 時段2 Time period 2:
 時間 Time：星期四15:00~17:00
 地點 Office/Laboratory：社SS 4037

系所學生專業能力/全校學生基本素養與核心能力 basic disciplines and core capabilities of the department and the university

系所學生專業能力/全校學生基本素養與核心能力 basic disciplines and core capabilities of the department and the university	課堂活動與評量方式 Class activities and evaluation										
	本課程欲培養之能力與素養 This course enables students to achieve.	紙筆考試或測驗 Test.	課堂討論(含個案討論) Group discussion (case analysis).	個人書面報告、作業、作品、實驗 Individual paper report/assignment/work or experiment.	群組書面報告、作業、作品、實驗 Group paper report/assignment/work or experiment.	個人口頭報告 Individual oral presentation.	群組口頭報告 Group oral presentation.	課程規劃之校外參訪及實習 Off-campus visit and intership.	證照/檢定 License.	參與課程規劃之校內外活動及競賽 Participate in off-campus/on-campus activities and competitions.	課外閱讀 Outside reading.
※系所學生專業能力 Basic disciplines and core capabilities of the department											
1.經濟分析。 1. The ability to conduct economic analysis.	V	V		V							
2.專業技術。 2. The ability to improve professional skills.	V	V		V							
3.國際視野與國際移動能力。 3. The ability to form international visions and work across countries.											
4.守法紀與積極進取的態度。 4. The attitudes to abide laws and to take initiatives.											
5.問題解決能力。 5. The ability to solve problems.	V	V		V							
6.職涯發展的瞭解及規劃。 6. The ability to understand career options and conduct career planning.	V	V		V							

[illegible]

14.提昇面對問題時理性解決問題之能力。 14. Reinforcing problem solving ability.	V	V									
※全校學生基本素養與核心能力 Basic disciplines and core capabilities of the university											
1.表達與溝通能力。 1. Articulation and communication skills	V	V									
2.探究與批判思考能力。 2. Inquisitive and critical thinking abilities	V	V									
3.終身學習能力。 3. Lifelong learning	V	V									
4.倫理與社會責任。 4. Ethnics and social responsibility											
5.美感品味。 5. Aesthetic appreciation											
6.創造力。 6. Creativity											
7.全球視野。 7. Global perspective											
8.合作與領導能力。 8. Team work and leadership	V	V									
9.山海胸襟與自然情懷。 9. Broad-mindedness and the embrace of nature											