

課程中文名稱 Title of Course in Chinese : 計量經濟

課程英文名稱 Title of Course in English : **Econometrics**

應修系級 Major : 城市治理英語碩士學位學程 1, 城市治理英語碩士學位學程 2

授課教師 Instructor : 王千岳

選修類別 Required/Elective : 必

全半學年 Whole or Half of the Academic Year : 半學年

學 分 Credit(s) : 2 學分

時 數 Hour(s) : 2 小時

教學目標 Course Objectives :

What is Econometrics?

"Econometrics is the study of the application of statistical methods to the analysis of economic phenomena" (Tintner,1953)

"nowadays my definition would be that Econometrics is what econometrician do"
(Goldberger, 1989)

In the first issue of *Econometrica*, one of the best journals in Econometrics, the Econometric Society stated that its main object shall be to promote studies that aim at a unification of the theoretical-quantitative and the empirical-quantitative approach to economic problems and that are presented by constructive and rigorous thinking similar to that which has come to dominate the natural sciences.

內容綱要/Course Outline :

The course will be taught on the basis of *Econometric Analysis* (Greene, 1999, 2011).

1. Introduction
2. Matrix Algebra
3. Probability and Distribution Theory
4. Statistical Inference
5. The Classical Multiple Linear Regression Model: Specification and Estimation
6. Nonspherical Disturbances(Feasible Generalised Least Squares)
7. Heteroscedasticity
8. Instrumental Variable Estimation and Measurement Error
9. Alternative Estimators for the Classical Regression Model: focusing on the Maximum Likelihood Estimator

指定用書(Required Texts) :

1. *Econometric Analysis* (7th Edition) 2011 · W. Greene ◦

其他參考資料(Other References) :

- Estimation and Inference in Econometrics, Davidson and Mackinnon, 1993
A Guide to Econometrics, Fifth Edition, P. Kennedy, 2003
Linear Algebra and Its Applications, 4th Edition, D. Lay, 2011