



課 綱 Course Outline
經濟學系學士班

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| 中文課程名稱 Course Name in Chinese | 計量經濟學(一) | | | | |
| 英文課程名稱 Course Name in English | Econometrics(I) | | | | |
| 科目代碼 Course Code | EC_31700 | 班 別 Degree | 學士班 Bachelor's | | |
| 修別 Type | 學程 Program | 學分數 Credit(s) | 3.0 | 時 數 Hour(s) | 3.0 |
| 先修課程 Prerequisite | 統計學(二) | | | | |
| 課程目標 Course Objectives | | | | | |
| <p>This course is an introductory econometrics at the undergraduate level. This course aims at giving students basic understanding of econometrics theories and applying econometric techniques of regression analysis. Various econometric models are illustrated by practical examples based on concrete data to achieve this goal. We will cover the following topics: classical linear regression model, hypothesis testing, dummy variable regression, and multicollinearity.</p> | | | | | |
| 系教育目標 Dept.'s Education Objectives | | | | | |
| 1 | <p>培育具專業知識與實務發展潛力的優秀經濟人才。 Educate students to be equipped with professional knowledge and empirical skills in economics</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 | <p>數理分析能力：應用數學與賽局理論分析與解決經濟議題的能力。 Mathematical analysis skills: application of mathematical theories and game theory to analyze economic issues</p> | | | | |
| B | <p>實證經濟分析能力：善用資訊科技進行資訊蒐集、資料統計與計量分析 Empirical analysis skills: application of statistics and econometrics in data collection and examination</p> | | | | ● |
| C | <p>微觀經濟之闡釋能力：通曉個體經濟學相關的理論與應用。 Microeconomic perspective: understanding of microeconomic theories and relevant application</p> | | | | |

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| D | 宏觀經濟之闡釋能力：通曉總體經濟學相關的理論與應用。 Macroeconomic perspective: understanding of macroeconomic theories and relevant application | |
| E | 樂活能力：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 | ● |
| 圖示說明Illustration：● 高度相關 Highly correlated ○ 中度相關 Moderately correlated | | |
| 課程大綱 Course Outline | | |
| 1. Introduction to Econometrics 2. Basics of Probability and Statistics 3. Two-Variable Regression Model: Estimation 4. Two-Variable Regression model: Hypothesis Testing 5. Extension of Two-Variable Regression Model 6. Multiple Regression Model: Estimation 7. Multiple Regression Model: Hypothesis Testing 8. Dummy Variable Regression Model 9. Multicollinearity | | |
| 資源需求評估（師資專長之聘任、儀器設備的配合．．．等） Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.) | | |
| 計量軟體 | | |
| 課程要求和教學方式之建議 Course Requirements and Suggested Teaching Methods | | |
| 根據教師自行編寫之講義以投影片講授方式進行，並以計量經濟軟體示範操作過程供學生參考，同時學生亦可當場練習 | | |
| 其他 Miscellaneous | | |
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