

303 26420  
2010 春季

台大經濟系

統計學與實習二  
社科4

- 上課時間:  
正課: 週三 9:10-12:10。  
實習: 週二 9:10-12:10。
- Office Hour: 週三 14:00-15:00。
- 課程目標: 使學生在修完本課程之後, 擁有從事實證研究所需的基本工具。
- 課程網頁: <http://ccms.ntu.edu.tw/~luohm/stats2010s/stats2010s.htm>
- 教材:
  - Stock and Watson (2007), *Introduction to Econometrics*, Addison Wesley, 2nd edition.
- 成績計算: 小考 30%, 期中考 30%, 期末考 40%。
- 實習課:  
鍾岳軒助教, 網頁 <http://statistics-ta.blogspot.com/>。
- 上課日期:  
2010/2/24,  
3/3, 10, 17, 24, 31,  
4/14,  
4/21, 期中考  
4/28,  
5/5, 12, 19, 26,  
6/2, 9,  
6/23, 期末考。

- Topics:
  1. Bivariate Regression (SW 4, SW 5, SW 17).
    - Probability framework.
    - Estimation and hypothesis testing.
    - Homoskedasticity.
  2. Multiple Regression (SW 6, SW 7, SW 18).
    - Omitted variable bias.
    - Multiple regression model.
  3. Nonlinear Regression Models (SW 8).
    - Modeling nonlinear regression functions.
    - Interactions between independent variables.
  4. Assessing Regression Studies (SW 9).
    - Internal and external validity.
    - Threats to internal validity.
  5. Panel Data (SW 10).
    - Panel data with two periods.
    - Fixed effects regression.
  6. Binary Dependent Variable Models (SW 11).
    - Linear Probability Model.
    - Probit and Logit Models.
  7. Instrumental Variables Regression (SW 12).
    - General IV regression model.
    - Checking instrument validity.
    - Where do IV come from?
  8. Experiments and Quasi-Experiments (SW 13).
    - Difference-in-difference estimator.
    - Quasi-experiments.
    - Average treatment effect.