課程大綱
Program Syllabus

系所 Department	企業管理研究所 / Graduate Institute of Business Administration	必選修 compulsory/elective	選修 elective
課程名稱 (含英文名稱) Course title	財務計量經濟學 Financial Econometrics	學分數 Credit(s)	3
學年/學期 academic year/Semester	109-2 學期 Spring semester 2021	上課地點 Classroom	管院 427
講授教師 Instructor	宋豪漳 Hao-Chang Sung	上課時間 Time	Thursday, 09:10PM~12:00PM
教師辦公室&諮詢時間 Instructor office number & office hour	管院 421 Thursday, 14:30-16:00 PM	教師聯絡資訊 Instructor Contact	Phone: TBA Email: frrg4125@hotmail.com
助教 Teaching assistant	TBA	助教聯絡資訊 TA contact	Email: TBA

先修課程 Pre-requisite courses	統計學、微積分、財務管理 Statistics, Calculus, and Financial Management
課程目標 Course Objective	1.This course will show how econometric methodologies can be used in finance-related research, mainly focusing on financial management, corporate finance and financial accounting issues. 2.These econometric methods include multiple regressions, simultaneous regressions, panel data analysis, and some issues related to finance and financial accounting. 3.By the end of this course, (I hope) students can understand the intuition behind financial econometrics and be expected to apply the empirical techniques learned in class to actual financial data.

AACSB 學習品質保證學習目標 Assurance of Learning (AOL) Learning goals

***請先選填為主要或次要學習目標(Major or minor learning goal)，再選擇對應之學習目標**

主要學習目標 Major learning goal **目標 1：創新思考 LG1:Creative Thinking**	**主要學習目標 Major learning goal** **目標 4：全球視野 LG4:Global Perspectives**	**次要學習目標 Minor learning goal** **目標 2：溝通能力 LG2:Communication Skills**

教材 Teaching materials	Handouts
網址 Course website	TBA
教科書/參考書 Textbooks/Reference	Textbooks: 1. Lee, C. F., Chen, H. Y., & Lee, J. (2019). *Financial Econometrics, Mathematics and Statistics*. Springer, New York.

<table>
<tr><td></td><td colspan="4">2. Campbell, J. Y., Lo, A. W., & MacKinlay, A. C. (1997). The Econometrics of Financial Markets. Princeton University press.
3. Assigned papers.

Recommended Books:
2. Gibbons, R. S. (1992). A Primer in Game theory. Harvester Wheatsheaf.
2. Allen, F., & Morris, S. (1998). Finance applications of game theory. Cowles Foundation for Research in Economics.</td></tr>
<tr><td rowspan="6">評量方式(請填百分比)
Assessment</td><td>課堂參與 Participation</td><td>20%</td><td>個案討論 Case study</td><td>%</td></tr>
<tr><td>作業 Homework</td><td>%</td><td>專題 Project</td><td>50%</td></tr>
<tr><td>小考 Quiz</td><td>%</td><td>其他 1 other ( )</td><td>%</td></tr>
<tr><td>期中考 Midterm</td><td>30%</td><td>其他 2 other ( )</td><td>%</td></tr>
<tr><td>期末考 Final</td><td>%</td><td>其他 3 other ( )</td><td>%</td></tr>
<tr><td>報告 Presentation</td><td>%</td><td>其他 4 other ( )</td><td>%</td></tr>
<tr><td>其他說明
Other description</td><td colspan="4">
1. 碩博合開課程
The course will be offered for master and doctoral students.
2. Teaching Approach(es):
講述 Lecture: 50%
課堂討論 Class Discussion: 20%
小組活動 Group Activity: 30%
3. Course Contents:
i. Class Participation/Attendance (20%)
Class attendance and participation are important. Students need to send an e-mail for their excuse for absences in advance. (In case of an emergency or illness, they are allowed to send me an e-mail after their absence)
ii. Midterm Exam (30%)
There will be one midterm exam for this course. The exam will consist of 2 to 3 essay questions and 1 to 2 analyses and calculations problems that involve some calculation process without a computer's help. Each exam grading is based on a 100-point basis.
iii. Project (50%)
a. Students need to select a research paper published in one of leading accounting or finance journals (The Accounting Review, Journal of Accounting and Economics, Journal of Accounting Research, Review of Accounting Studies, Contemporary Accounting Research; Journal of Finance, Journal of Financial Economics, Review of Financial Studies, Journal of Financial and Quantitative Analysis).
b. Students will form a team (2 students) and present the selected paper. Each group will be required to present as if he/she was the author. The discussion leader is to provide a summary report of the papers and help facilitate an in-depth understanding</td></tr>
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	of the methodological innovations and problems. Besides, practical issues, such as data collecting, data manipulation, and data analysis, are also introduced. Each group is expected to apply the empirical techniques learned in class to real-world financial data. By the end of this course, each group should replicate a research paper in one of the leading journals.

課程規劃表 Course Schedule

週次 **week**	日期 **Date**	內容 **Description**	教材章節 **Textbook**	其他說明 **Remark**
1.	2/24	Course Review	Ch.1 of Lee et al. (2019)	
2.	3/3	a. Multiple Regression Model b. Various Topics Associated with the Regression Analysis (Multicollinearity, Heteroscedasticity, Autocorrelation, Model Specification and Specification Bias of the Regression Model)	Ch.2 & Ch.3 of Lee et al. (2019)	
3.	3/9	a. Various Topics Associated with the Regression Analysis (Nonlinear Regression Models, Lagged Dependent b. Variables in the Regression Model, Dummy Variables in the Regression Model, and Regression Model with Interaction Variables)	Ch.3 of Lee et al. (2019)	
4.	3/17	a. Endogeneity (Two-Stage Least Squares, Three-Stage Least Squares) b. Assigned paper: Billett, T., J. A. Garfinkel, and M. Yu, 2017. The effect of asymmetric information on product market outcomes. *Journal of Financial Economics* 123(2), 357-376.	Ch.4 of Lee et al. (2019)	
5.	3/24	a. Endogeneity (Exogenous Shock, Difference in Difference) b. Assigned paper: Francis, B., I. Hasan, and Q. Wu, 2015. Professors in the boardroom and their impact on corporate governance and firm performance. *Financial Management* 44(3), 547-581.	Ch.4 of Lee et al. (2019)	
6.	3/31	a. Econometric Approach to Financial Analysis, Planning, and Forecasting (SUR Estimation Methods)	Ch.5 of Lee et al. (2019)	
7.	4/7	a. Econometric Approach to Financial Analysis, Planning, and Forecasting (Structural Econometric Models)	Ch.5 of Lee et al. (2019)	
8.	4/14	a. Fixed Effects, Clustering Effects b. Assigned paper: i. Petersen, M. A. 2009. Estimating Standard errors in Finance Panel Data Sets: Comparing Approaches. *The Review of Financial Studies*, 22(1), 435-480. ii. Hilary, G., & Hsu, C. 2011. Endogenous Overconfidence in Managerial Forecasts. *Journal of Accounting and Economics*, 51(3), 300-313.	Ch.6 of Lee et al. (2019)	
9.	4/21	a. Fixed Effects, Clustering Effects b. Assigned paper: Thompson, S. B., 2011. Simple Formulas for Standard Errors that Cluster by Both Firm and Time. *Journal of Financial Economics*, 99(1), 1-10.	Ch.6 of Lee et al. (2019)	
10.	4/28	Midterm Exam		
11.	5/5	a. Errors-in-variables Estimation Methods in Finance Research (Cost of Capital, Asset Pricing,)	Ch.7 of Lee et al. (2019)	

12.	5/12	a. Errors-in-variables Estimation Methods in Finance Research (Capital Structure, Investment Decision)	Ch.7 of Lee et al. (2019)	
13.	5/19	a. Assigned paper: Peters, R.H., and Taylor, L.A. (2017) Intangible capital and the investment-q relation. *Journal of Financial Economics*, 251-272.		
14.	5/26	a. Assigned paper: Kim, D. (1995). The Errors in the Variables Problem in the Cross-section of Expected Stock Returns. *The Journal of Finance*, 50(5), 1605-1634.		
15.	6/2	a. Spurious Regression and Data Mining (Applying into Simple Predictive Regression.)	Ch.9 of Lee et al. (2019)	
16.	6/9	a. Event Study Analysis b. Assigned paper: How Much New Information Is There in Earnings? *Journal of Accounting Research*, 46, 975-1016.	Ch.4 of Campbell et al. (1997).	
17.	6/16	Final Project Presentation		
18.	6/23	Final Project Presentation		