管院學士班課程大綱
BA/BBA Program Syllabus

2023.09.20 修訂

系所 Department	財務金融學系 Finance	必選修 compulsory/elective	必修 Compulsory
課程名稱 Course title	計量經濟學 Econometrics	學分數 Credit(s)	3
課號 Course Code	5155650 02	全英文授課 English Taught (EMI)	是(Yes)
學年/學期 academic year/Semester	115 學年度第 1 學期 Fall 2026	上課地點 Classroom	Room 350
講授教師 Instructor	許至廷 Zhi-Ting Xu	上課時間 Time	Thursday, 9:10~12:00
教師辦公室&諮詢時間 Instructor office & office hour	Room 358 Tuesday, 14:00~17:00 Or by appointment	教師聯絡資訊 Instructor Contact	Phone: Ext. 34204 Email: ztxuccu@ccu.edu.tw
助教 Teaching Assistant		助教 聯絡資訊 TA contact	
先修課程 Pre-requisite courses			
學習目標 Learning Objective	By the end of this course, students are expected to achieve the following objectives: 1. Gain a deep understanding of the mathematical derivations, statistical properties of Ordinary Least Squares (OLS), and the Gauss-Markov theorem. 2. Develop the professional capability to identify, test, and correct common empirical data issues, including heteroskedasticity, autocorrelation, multicollinearity, and endogeneity bias. 3. Proficiency in utilizing statistical software for data cleaning, model estimation, residual diagnostics, and data visualization, effectively translating theory into practice.		
課程概述 Course Descriptions	This course aims to introduce students to the theoretical foundations and empirical methods of econometrics. The curriculum focuses on transforming economic and financial theories into testable statistical models and estimating them using real-world data. Beginning with the Classical Linear Regression Model (OLS), we will explore the diagnosis and remediation of violations of basic assumptions, such as heteroskedasticity, autocorrelation, and endogeneity, while introducing instrumental variables and panel data methods widely used in modern empirical research. Emphasizing both theory and practical application, this course enables students to develop the skills necessary to conduct independent empirical research and accurately interpret data through hands-on statistical software exercises.		
對應 AOL 職能素養(AOL Competency)			

<table>
<tr><td colspan="3">職能素養 3(Competency 3)：問題解決能力 Problem Solving Skills</td><td colspan="2">職能素養 2(Competency 2)：創新思考 Creative Thinking</td></tr>
<tr><td>課程類別
Course Attributes</td><td colspan="4">☐人文關懷課程(Humanities Caring) ☐競賽專題課程(Competition)
☑問題導向課程(Problem-solving) ☑專題導向課程(Project-based)
☐實作課程(Practice-based) ☐總整課程(Capstone)</td></tr>
<tr><td>教材編選
Teaching materials</td><td colspan="4">☑自製簡報(self-made PPTs) ☐課程講義(Teaching Notes)
☐自編教科書(self-made textbooks) ☑教學程式(programming)
☐自製教學影片(self-made video) ☑其他(Others)</td></tr>
<tr><td>教學資源
Teaching Resources</td><td colspan="4">☑課程網站(Website) ☐實習網站(Intern Web)
☑教材電子檔供下載(Downloadable Files)</td></tr>
<tr><td>教科書/參考書
Textbooks/References</td><td colspan="4">Textbooks:
Wooldridge, J. M. Introductory Econometrics: A Modern Approach. Cengage Learning. (華泰文化進口)
References:
周賓凰。《計量經濟學:理論.觀念與應用》。雙葉書廊
Greene, W. H. Econometric Analysis. Pearson. (雙葉書廊進口)</td></tr>
<tr><td rowspan="6">評量方式(請填百分比)
Assessment</td><td>個案討論 Case study</td><td>%</td><td>課堂參與 Participation</td><td>30% (+up to 15% bonus)</td></tr>
<tr><td>作業 Homework</td><td>%</td><td>專題 Project (Term paper)</td><td>30%</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>40%</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">Attendance & Participation Policy:
Interaction and discussion are core components of this course. Active participation and questioning are highly encouraged.

Academic Integrity & AI Usage Policy:
This course strictly adheres to academic integrity. Plagiarism, cheating, or free-riding of any kind will not be tolerated.
Regarding Generative AI (e.g., ChatGPT, Claude): You may use these tools as aids for debugging or conceptual learning. However, direct "copy-pasting" of AI-generated content or code for final submissions is strictly prohibited. All data and literature referenced must be properly cited. Any violation of academic integrity will result in a zero for the assessment and will be reported to the university.

Classroom Etiquette & Device Usage Policy:
Laptops and tablets are permitted in class strictly for note-taking, reviewing literature, or in-class coding exercises. However, engaging in non-class-related</td></tr>
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	activities (such as browsing social media or gaming) is prohibited. Please mute your mobile phones during class to help maintain a focused and professional learning environment.

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.	9/10	The Nature of Econometrics and Economic Data	Ch. 1	
2.	9/17	The Simple Regression Model	Ch. 2	
3.	9/24	Multiple Regression Analysis: Estimation	Ch. 3	
4.	10/1	Multiple Regression Analysis: Inference	Ch. 4	
5.	10/8	Multiple Regression Analysis: OLS Asymptotics	Ch. 5	
6.	10/15	Multiple Regression Analysis: Further Issues	Ch. 6	
7.	10/22	Multiple Regression Analysis with Qualitative Information: Dummy Variables	Ch. 7	
8.	10/29	Heteroskedasticity	Ch. 8	
9.	11/5	Mid-term Exam		
10.	11/12	More on Specification and Data Issues	Ch. 9	
11.	11/19	Basic Regression Analysis with Time Series Data	Ch. 10	
12.	11/26	Further Issues in Using OLS with Time Series Data	Ch. 11	
13.	12/3	Serial Correlation and Heteroskedasticity in Time Series	Ch. 12	
14.	12/10	Instrumental Variables Estimation and Two Stage Least Squares	Ch. 15	
15.	12/17	Selected Topics		
16.	12/24	Final Exam		
17.	12/31	Self-learning		
18.	1/7	Self-learning		