Please consult Intellectual Property Rights before making a photocopy. Please use the textbook of copyrighted edition.

②图玄東華大學

❷ 函 互 東 华 大 學								
教學計劃表 Syllabus								
課程名稱(中文) Course Name in Chinese	賽局理論與經濟應用(一)				學年/學期 Academic Year/Semester 114/1		114/1	
課程名稱(英文) Course Name in English	Game Theory with Economic Applications (I)							
科目代碼 Course Code	IIE_57900	系級 Department 碩士 & Year		1	開課單位 Course-Offering Department	經濟學系		
修別 Type	選修 Elective	選修 Elective						
授課教師 Instructor	/林慧菁							
先修課程 Prerequisite								
課程描述 Course Description								
賽局在社會科學中之應用相當廣泛,舉凡政治、經濟、產業、管理等各學界皆有運用賽局之範例,本課程將理論與應用並重,強調賽局理論之邏輯性思維而非艱澀的數學驗證,以培養學生應用賽局理論來設計經濟模型及解釋經濟問題之能力。								
課程目標 Course Objectives								
近年來經濟分析大量引用賽局理論,研究生必須充分掌握此一工具,方有能力學 習與理解新的經濟理論,為獨立的研究能力奠定基礎。								
課程目標與系專業能 力相關性								

	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	數理分析能力:通曉經濟學的進階理論技巧,應用數學與賽局解決經濟議題的能力。 Mathematical analysis skills: Mastering in intermediate application of mathematical theories and game theory in analyzing economic issues.	0
В	實證經濟分析能力:通曉經濟學的進階實證技巧,善用資訊科技進行資訊蒐集、資料統計與計量分析。Empirical analysis skills: Mastering in intermediate application of statistics and econometrics in data collection and examination	
С	微觀經濟之闡釋能力:通曉進階個體經濟學相關的理論與應用。Microeconomic perspective: Thorough understanding of intermediate microeconomic theories and relevant application	0
D	宏觀經濟之闡釋能力:通曉進階總體經濟學相關的理論與應用Macroeconomic perspective: Thorough understanding of intermediate macroeconomic theories and relevant application	
Е	自我調整適應社會之能力: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	
F	溝通表達能力:思路清晰,有能力與人溝通並撰寫進階專業研究報告。Communication skills: Having a clear mind and capability in writing an intermediate professional academic report	
l — -	and the second s	

圖示說明Illustration : ● 高度相關 Highly correlated ○中度相關 Moderately correlated

授課進度表 Teaching Schedule & Content

週次Week	內容 Subject/Topics	備註Remarks
	課程介紹 Introduction and general principles	

2	Introduction and general principles 1. Basic Ideas and Examples	
3	2. How to think about strategic games Game form, definition and solution concepts	
4	Funddamental concepts and techniques 3. Games and sequential moves Extensive form games, Game trees, Order advantages, Adding more players/moves	
5	4. Simultanteous-move games: discrete strategies Normal form games, Nash equilibrium, Dominance, Pure strategies	
6	5. Simultanteous-move games: continuous strategies, discussion, and evidence Normal form games, Pure strategies, Rationalizability	
7	6. Combining sequential and simultaneous moves Games with both simultaneous and sequential moves, Changing the order of moves, Alternative method of analysis	
8	6. Combining sequential and simultaneous moves Games with both simultaneous and sequential moves, Changing the order of moves, Alternative method of analysis	
9	期中考試週 Midterm Exam	
10	7. Simultaneous-move games: Mixed strategies Mixing moves, Beliefs and responses, Non-zero-sum games, Mixing when one or both players have 3 or more pure strategies	
11	7. Simultaneous-move games: Mixed strategies Mixing moves, Beliefs and responses, Non-zero-sum games, Mixing when one or both players have 3 or more pure strategies	
12	Some broad classes of strategies and games 8. Strategic moves Commitments, Deterrence versus Compellence, Credibility, Countering strategies	
13	8. Strategic moves Commitments, Deterrence versus Compellence, Credibility, Countering strategies	
14	9. Uncertainty and Information Strategies dealing with risk, Asymmetric information, Direct communication, Cheap talk, Adverse selection, signalling, screening	
15	9. Uncertainty and Information Strategies dealing with risk, Asymmetric information, Direct communication, Cheap talk, Adverse selection, signalling, screening	
16	10. The prisoners' dilemma and repeated games Finite and infinite repetition, Games of unknown length, Promises, Penalties and rewards, Leadership	
17	10. The prisoners' dilemma and repeated games Finite and infinite repetition, Games of unknown length, Promises, Penalties and rewards, Leadership	
18	期末考試週 Final Exam	

教學策略 Teaching Strategies
✓ 課堂講授 Lecture
教學創新自評Teaching Self-Evaluation
創新教學(Innovative Teaching)
問題導向學習(PBL) 團體合作學習(TBL) 解決導向學習(SBL)
翻轉教室 Flipped Classroom 磨課師 Moocs
社會責任(Social Responsibility)
□ 在地實踐Community Practice □ 產學合作 Industy-Academia Cooperation
跨域合作(Transdisciplinary Projects)
□跨界教學Transdisciplinary Teaching □跨院系教學Inter-collegiate Teaching
□ 業師合授 Courses Co-taught with Industry Practitioners
其它 other:

學期成績計算及多元評量方式 Grading & Assessments									
配分項目	配分比例	多元評量方式 Assessments							
Items	Percentage	測驗 會考	實作 觀察	口頭 發表	專題 研究	創作 展演	卷宗 評量	證照 檢定	其他
平時成績 General Performance	20%	~	~						
期中考成績 Midterm Exam	30%	~							
期末考成績 Final Exam	30%	~							
作業成績 Homework and/or Assignments	20%	~			~				
其他 Miscellaneous									

評量方式補充說明

Grading & Assessments Supplemental instructions

期中考、期末考可能為 take-home exam,但仍要看課堂上的學習狀態而定。課堂上會加入參考文獻的賽局模型的講述。

教科書與參考書目(書名、作者、書局、代理商、説明)

Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

教科書

Dixit, A., S. Skeath, and D. McAdams, Games of Strategy, 5th ed. W. W. Norton & Company.

參考書:

- [R]. Rasmusen, E (2007), Games and Information, 4th ed. Blackwell.
- [Fr]. Friedman, J. W. (1991), Game Theory with Applications to Economics, 2nd ed., Oxford U. Press.
- [G]. Gibbons, R. (1992), Game Theory for Applied Economists, Princeton U. Press.
- [Fu]. Fudenberg, D. and J. Tirole (1991), Game Theory, MIT Press.
- [M]. Myerson, R. B. (1991), Game Theory: analysis of Conflict, Harvard U. Press.
- [0]. Osborne, M. J. and A. Rubinstein (1994), A Course in Game Theory, MIT Press.
- 以及其他補充教材與論文等.

課程教材網址(含線上教學資訊,教師個人網址請列位於本校內之網址)

Teaching Aids & Teacher's Website(Including online teaching information.

Personal website can be listed here.)

http://faculty.ndhu.edu.tw/~hclin/

其他補充說明 (Supplemental	instructions)