



教學計劃表 Syllabus

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| 課程名稱(中文) Course Name in Chinese | 產業經濟(二) | | | 學年/學期 Academic Year/Semester | 105/2 |
| 課程名稱(英文) Course Name in English | Analysis in Industrial Economics (II) | | | | |
| 科目代碼 Course Code | EC__71100 | 系級 Department & Year | 博士 | 開課單位 Course-Offering Department | 經濟學系 |
| 修別 Type | 選修 Elective | 學分數/時間 Credit(s)/Hour(s) | | 3.0/3.0 | |
| 授課教師 Instructor | /郭平欣 | | | | |
| 先修課程 Prerequisite | | | | | |
| 課程描述 Course Description | | | | | |
| Industrial organization is primarily an applied price theory course devoted to the study of issues involving the organization and behavior of firms and industries. Outside of addressing "standard" topics such as the effect of concentration, barriers to entry, empirical cost curves, and product differentiation; students will be asked to understand some newer topics such as transaction-cost analysis, game theory, strategic behavior as a method of competition/collusion, and franchising. | | | | | |
| 課程目標 Course Objectives | | | | | |
| This course will provide students with the ability to conduct and evaluate economic analyses of issues relating to industrial economics. The course begins with an introduction of the field. It proceeds to a discussion of the behavior of firms in an imperfectly competitive world. We study the effects of different industrial policy instruments. | | | | | |
| 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 application of mathematical theories and game theory in analyzing economic issues. | | | | ● |
| B | 實證經濟分析能力：通曉經濟學的實證技巧，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 application of statistics and econometrics in data collection and examination | | | | |
| C | 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: Thorough understanding of microeconomic theories and relevant application | | | | ● |
| 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: Thorough 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 | | | | ○ |
| F | 溝通表達能力：思路清晰，有能力與人溝通並撰寫專業研究報告。Communication skills: Having a clear mind and profound ability in presenting professional academic research | | | | ○ |
| 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 |

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| 1 | <p>Introduction(課程介紹)</p> <p>*Gambit介紹</p> <p>-Gambit is a set of software tools for doing computation on finite, noncooperative games. These comprise a graphical interface for interactively building and analyzing general games in extensive or strategy form; a number of command-line tools for computing Nash equilibria and other solution concepts in games; and, a set of file formats for storing and communicating games to external tools.</p> <p>*市場賽局(market game):</p> <p>*Optimization and Equilibrium</p> <p>-Cournot vs Bertrand</p> <p>-Homogeneous vs Heterogeneous</p> <p>-From 2 to N,</p> <p>-Symmetric vs Asymmetric</p> | |
| 2 | <p>*Introduction to Maple</p> <p>*Singh and Vives (1984) "Price and quantity competition in a differentiated duopoly," RAND, 15(4):546-555.</p> <p>+Competition and the choice of instrument variables.</p> | |
| 3 | 228 Memorial Day - Holiday | |
| 4 | <p>+Competition and the choice of instrument variables.</p> <p>Cheng, Leonard, (1985) "Comparing Bertrand and Cournot Equilibria: A Geometric Approach," RAND Journal of Economics, The RAND Corporation, vol. 16(1), pages 146-152, Spring.</p> | |
| 5 | <p>Product differentiation-horizontal (產品差異化-水平差異)</p> <p>Hotelling model, minimum vs maximum differentiation</p> <p>d'Aspremont C., J. J. Gabszewicz and J.F. Thisse(1979) "On Hotelling's "Stability in Competition"," Econometrica, 47(5):1145-1150.</p> | |
| 6 | <p>Product differentiation-Vertical (產品差異化-垂直差異)</p> <p>Quality choice</p> <p>Choi, C.J. and H.S. Shin (1992), "A Comment on a Model of Vertical Product Differentiation," Journal of Industrial Economics, 40, 2, 229-231.</p> | |
| 7 | <p>Product differentiation-Vertical (產品差異化-垂直差異)</p> <p>Instruments vs Quality choice</p> <p>Motta, M. (1993) "Endogenous Quality Choice: Price vs. Quantity Competition," The Journal of Industrial Economics, 41, 113-31.</p> <p>The Range of type and Market coverage消費者類型、品質範圍與市場覆蓋</p> <p>Wauthy, X. (1996) "Quality Choice in Models of Vertical Differentiation," Journal of Industrial Economics, 44, 3, 345-53.</p> | |
| 8 | Spring Break - Holiday(放假) | |
| 9 | 期中考 | |
| 10 | <p>Licensing(授權)</p> <p>Wang X. H. (1998), "Fee versus Royalty Licensing in A Cournot Duopoly Model," Economics Letters, 60:55 - 62.</p> <p>Wang, X. H. and B. Z. Yang, (1999), "On Licensing under Bertrand Competition," Australian Economic Papers, 38:106 - 119.</p> <p>Wang, X.H. (2002), "Fee vs. Royalty Licensing in Differentiated Cournot Oligopoly," Journal of Economics and Business, 54, 253 - 262.</p> | |
| 11 | <p>Licensing(授權)</p> <p>Fosfuri, A. and E. Roca, (2004), "Optimal Licensing Strategy: Royalty or Fixed Fee?" International Journal of Business and Economics, 3:13-19.</p> <p>Kabiraj, T. (2004), "Patent Licensing in a Leadership Structure," The Manchester School, 72:188-205.</p> <p>Wang, X. H. and B. Z. Yang(2004), On Technology Transfer to an Asymmetric Cournot Duopoly, Economics Bulletin, 4(14):1-6.</p> | |

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| 12 | Licensing(授權) Li, C. and J. Song (2009), "Technology Licensing in a Vertically Differentiated Duopoly," Japan and the World Economy, 21:183-90. Li, C. and J. Wang (2010), "Licensing a Vertical Product Innovation," The Economic Record, 1-11. | |
| 13 | Licensing(授權) Poddar, S. and Sinha, U. B. (2010). 'Patent Licensing from a High-cost Firm to a Low-cost Firm', Economic Record, 86:384-395. Chen, C. S. (2015) "Endogenous Market Structure and Technology Licensing", TEA. | |
| 14 | Auctions and Bidding拍賣(投標與喊價): Vickrey, W. (1961). "Counterspeculation, auctions, and competitive sealed tenders," The Journal of Finance, 16(1), 8-37. McAfee, R. Preston and John McMillan. 1987. "Auctions and Bidding," Journal of Economic Literature, 25, 699-738. | |
| 15 | Bayesian game and mechanism design(貝氏賽局與機制設計):optimal auction design Myerson, R. (1981). "Optimal Auction Design," Mathematics of Operations Research, 6(1), 58-73. A seminal paper, introduced revenue equivalence and optimal auctions. Samuelson W. , (1984) "Bargaining under asymmetric information," Econometrica 52:995-1005. | |
| 16 | Dragon Boat Festival - Holiday | |
| 17 | Bayesian game and mechanism design(貝氏賽局與機制設計)-non-linear pricing Maskin E., and Riley J. (1984), "Monopoly with Incomplete Information," Rand Journal of Economics, 15: 171-196. | |
| 18 | final exam期末考 | |

教學策略 Teaching Strategies

- ☒ 課堂講授 Lecture
 ☐ 分組討論 Group Discussion
 ☐ 參觀實習 Field Trip
☒ 其他 Miscellaneous: 教導學生以數學軟體 Maple 做理論推導

學期成績計算及多元評量方式 Grading & Assessments

| 配分項目 Items | 配分比例 Percentage | 多元評量方式 Assessments | | | | | | | |
|----------------------------------|--------------------|--------------------|----------|----------|----------|----------|----------|----------|------------------------|
| | | 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 | | | | | | | | | |
| 期中考成績 Midterm Exam | 40% | ✓ | | | | | | | open books, open notes |
| 期末考成績 Final Exam | | | | | | | | | |
| 作業成績 Homework and/or Assignments | 40% | | ✓ | ✓ | | | | | Maple推導 |
| 其他 Miscellaneous (期末報告) | 20% | | | ✓ | ✓ | | | | Maple推導 |

評量方式補充說明

Grading & Assessments Supplemental instructions

期中考採開放式

作業要繳交上課閱讀期刊文章之數學推導，以數學軟體 Maple 詳細說明推導過程，以內容正確、闡釋清楚、格式美觀作為評分標準。

期末報告自選一篇期刊文章，變更假設並以 maple 重新推導。

教科書與參考書目（書名、作者、書局、代理商、說明）
Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

課程教材網址（教師個人網址請列在本校內之網址）
Teaching Aids & Teacher's Website (Personal website can be listed here.)

其他補充說明 (Supplemental instructions)