

DONGGUAN UNIVERSITY OF TECHNOLOGY
School of Economics and Management

Course Syllabus

Spring 2020

Course Information

Course Code	0810068
Course Title	Industrial Economics
Instructor	Joseph Chih-Yuan Hung
Class	2018 International Economics and Trade (International Business Industry-University International Program)
Course Category	<input type="checkbox"/> Compulsory <input checked="" type="checkbox"/> Elective
Credit(s)	3
Total Hours	48
Hours Per Week	3
Practical Hours	16
Lab Practice Hours	0
Classroom	R3302, Guancheng Campus
Time	14:30-17:10, Wednesday
Office Hour	10:30~12:00, Wednesday
Required Textbook	Lecture Notes
Supplementary Materials	<p>Books:</p> <ol style="list-style-type: none"> 1. (Main reference, BDSS) Besanko, D., D. Dranove, M. Shanley, S. Schaefer. (2013). <i>Economics of Strategy</i>. 6th edition. John Wiley & Sons, Inc. ISBN- 978-1-118-27363-0. 2. (CP) Carlton, D. W. and J. M. Perloff. (2015) <i>Modern Industrial Organization</i>. Global Edition. Pearson Education Limited. ISBN- 978-1-292-08785-6. 3. (CW) Church, J. and R. Ware. (2000) <i>Industrial organization: A strategic approach</i>. 1st edition. McGraw-Hill Companies, Inc. ISBN-0-256-20571-X. 4. (PB) Perloff, J. M. and J. A. Brander, (2017) <i>Managerial Economics and Strategy</i>, 2nd edition, Pearson Education, Inc. ISBN- 978-0-13-416787-9 5. Dixit, A., S. Skeath and D. Reiley. (2015) <i>Games of strategy</i>. 4th Edition. W. W. Norton & Company.

	<p>ISBN 978-0-393-91968-4.</p> <ol style="list-style-type: none"> 6. Shapiro, C. and H. R. Varian. (1999) <i>Information Rules: A Strategic Guide to The Network Economy</i>. 1st edition. Harvard Business School Press. ISBN 0-87584-863-X. 7. Akerlof, G. A. and R. J. Shiller. (2015) <i>Phishing for Phools: The Economics of Manipulation and Deception</i>. 1st edition. Princeton University Press. ISBN 978-0-691-16831-9. 8. Roberts D. J. (2004) <i>The Modern Firm</i>. 1st edition. Oxford University Press. ISBN 978-0-19-829376-7. <p>Journal Articles:</p> <ol style="list-style-type: none"> 9. Katz, M. L. and C. Shapiro (1994). "Systems Competition and Network Effects," <i>Journal of Economic Perspectives</i>, 8:2, pp. 93-115. 10. Rysman, M (2009). "The Economics of Two-Sided Markets," <i>Journal of Economic Perspectives</i>, 23:3, pp. 125-143. 11. Economides, N. and J. Tåg (2012). "Network neutrality on the Internet: A two-sided market analysis," <i>Information Economics and Policy</i>, 24, pp. 91-104. 12. Rochet, J.-C. and J. Tirole (2003). "Platform Competition in Two-sided Markets," <i>Journal of European Economic Association</i>, 1:4, pp. 990-1029. 13. Hagiu, A. and S. Rothman (2016). "Network Effects Aren't Enough," <i>Harvard Business Review</i>. APRIL 2016 ISSUE. 14. Zhu, F. and N. Furr (2016). "Products to Platforms: Making the Leap," <i>Harvard Business Review</i>. APRIL 2016 ISSUE. 15. Van Alstyne, M.W., G. G. Parker, and S. P. Choudary (2016). "Pipelines, Platforms, and the New Rules of Strategy," <i>Harvard Business Review</i>. APRIL 2016 ISSUE. <p>Cases</p> <ol style="list-style-type: none"> 16. Guillotin, B (2018). "Geely Versus Ford: Threat from an Emerging Market Multinational to a Market Leader," Ivey Business School Foundation, 9B18M185. 17. Oberholzer-Gee, F., W. Shih, and N. Dai (2019). "Volvo Cars: Acquisition by Geely," Harvard Business School, 2019, 9-619-042. 18. Oberholzer-Gee, F., W. Shih, and N. Dai (2019). "Zhejiang Geely Holding Group: Acquisition of Volvo Cars," Harvard Business School, 9-619-041. 19. Seung Ho Park and Ziqian Zhao (2016). "Alibaba Group: Forstering an E-commerce Ecosystem." Ivey Business School Foundation, W16858.
Prerequisites	Advanced Mathematics, Microeconomics

Course website	ulearning: https://courseweb.ulearning.cn/ulearning/index.html#/course/announcement?courseId=42781 Website: https://chihyuanhung.net/teaching/industrial-economics/
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Course Description

Industrial Economics (IE) is a subject that focus on the analysis of firm behavior and market structure. It is a course that follows and complement of Intermediate Microeconomics in your optional track of major in economics. We mainly discuss the imperfectly competitive markets, which appear to be far more common than the perfectly competitive markets that were the focus of your basic microeconomics course. This field analyzes the acquisition and use of market power by firms, strategic interactions among firms, and the role of government competition policy. We will introduce the essential models to explain interesting phenomena.

There are four modules of our course:

Module I. The review of concepts in microeconomics;

Module II. The Boundaries of Firm

Module III. Market and competitive analysis;

Module IV. Network effect, platform and two-sided markets.

I also encourage you to read economic and business news from newspaper and magazines. Articles in Harvard Business Review are worth to read. Maybe those are good resources and references for your case report.

Course Learning Objectives (LOs)

After completing the course learning, the student will be able to:

LO1: Apply concepts relevant to industrial economics, such as the boundaries of firms, network effect, competitive strategies and competitive advantage to current events or topical issues.

LO2: Identify and evaluate the strategic behavior, competition and cooperation. Furthermore, considering the strategic behavior and cooperation in daily life, students will have a high standard on their own professions.

LO3: Evaluate empirical evidence of market performance and compare it with theories of market performance.

LO4: Research and analyze specific problems or issues related to industrial organization and business strategies.

Assessment and Grading

Your grade is composed by four parts. They are attendance (10%), homework/problem set (20%), case report (20%), and final exam (50%).

The date of exam will be discussed in the earl of June. The detailed grading is as following:

	Standard	Notes	LO1	LO2	LO3	LO4
Attendance, 10%	If you are late or leave early, your grade will be taken one point each time. If you are absent for one class, the taken point will be 2 for each absentee. Give questions is a good way to get points in attendance.	If you are taken more than 10 points away in this category, I will reserve your right to participate final exam.		✓		
Homework/ Problem Sets 30%	At least 2 problem sets will be delivered. Each student should hand in their-own answers. Discussion is allowed.		✓	✓		✓
Case report, 30%	The report of case study is a group work. The report should include the background of the case, the question/problem the firm faces, the environment the firm works on, and the theoretical and data analysis of the essential variables.	Paper should hand in before the final exam.	✓	✓	✓	✓
Final exam, 30%	Questions for 100 points on the test paper and will be weighted to be 50% in your grade.	Open book exam.	✓		✓	

Policies:

➤ Attendance Policy

Students cannot incur more than two unexcused absence for whole semester.

➤ **Participation Policy**

Students should participate every in-class discussion and experiment.

➤ **Policy on Assignments and Quizzes**

All assignments and exam should complete by yourself. See the rubrics of assessment event for the detailed of evaluation

➤ **Plagiarism**

If it is caught that you take another person's work, ideas, or words, and using them as if they were your own, then the corresponding assignment will be scored zero. You can use others' work in a proper way of referencing.

➤ **Classroom Policies**

- Late coming student should provide a reasonable excuse based on the microeconomic theory and share it in class. If there is no excuse, treat as absent.
- If there is a question, stop the instructor any time, and ask for an answer. Your question is others' question with a very high probability.

Course Expectations

1. Attendance - Class attendance is expected of all students. Especially for the experimental sessions, no miss of any experiment is the bottom line. For other cases, please notify me or the class TA before the day of an anticipated absence. Failure to attend class regularly or frequent tardiness will mean automatic loss of your attendance mark.
2. English - You are highly encouraged to speak English in the class and actively exchange your ideas, opinions and critical thinking with others. Make sure to speak English even during small-group or paired activities.
3. Before/After Class - Students should expect to spend an adequate amount of time on reviewing the textbook, course handouts and finalizing the group homework before the due day. To keep up with the flow of the course, students are strongly recommended to complete the relevant reading materials and to have the coming individual/group presentations/activities conscientiously prepared before the class.
4. Class Participation - Class participation is an essential part of the learning process. Students will be evaluated on the quality your individual/group performance, your team spirit and your contributions to the class/group activities by your peers or the lecturer correspondingly.
5. Late assignments will be accepted without penalty only in cases of legitimate

absences and only if the student has contacted the lecturer or the TA in advance regarding the reasons for the late assignment. If you miss a class, you must get previous class material from one of your student contacts.

6. Please be considerate of your fellow students during class presentations. Talking during the presentation will result in a 1% deduction from your final grade.

Session Plan of Theoretical Hours:

Week/Date	Topic/Contents/Difficulty	Activities	LO
1/Mar. 4	<p>Topics: Introduction of industrial economics; assessment introduction</p> <p>Content: Why do you need to study industrial economics. How to get high score in this course.</p> <p>Ethical and Political Learnings: Through discussion, the student will be able to know the difference between macro viewpoint of industrial growth and the micro viewpoint of firm growth in their hometown.</p>	Lecture Discussion	1
2/Mar. 11 (45 mins) 3/Mar. 18 (90 mins)	<p>Topic: Review of Microeconomics</p> <p>Content: Cost function, demand curve, elasticity, the revenue function and their properties, Pricing and output decision in perfect competition.</p> <p>Difficulty: knowing the relationships between elasticity, total revenue; knowing the cost minimization and product maximization problems. Solving the profit maximization problem.</p> <p>Ethical and Political Learnings: The student will be able to know the most important assumption in the modern economics and distinguish between mathematical model and practical problems. Furthermore, the students will be able to apply these concepts with a critical thinking.</p>	Lecture	1, 2
3/Mar. 18 (45 mins)	<p>Topics: The Horizontal Boundaries of the Firm</p> <p>Content: Definition of economies of scale and</p>	Lecturing	1, 2

<p>4/Mar. 25 5/ Apr. 1 (45 mins)</p>	<p>scope; Special sources of economies of scale and scope; sources of diseconomies of scale; the learning curve; Diversification. Difficulty: Distinguishing between economies of scale and learning economies.</p>		
<p>5/Apr. 1 (45 mins) 6/Apr. 8 (45 mins) 7/Apr. 15 (90 mins)</p>	<p>Topic: The Vertical Boundaries of the Firm Content: The definition of vertical chain; the definition of ‘make’ and ‘buy.’ Reasons to buy. Reasons to make. Contract theory, Transactions cost and the hold-up problem. Difficulty: the cost and benefit to decide “make or buy.” The bureaucracy effect, agency cost and influence cost. Ethical and Political Learnings: <ol style="list-style-type: none"> 1. how do big firms overcome the problem of too big to be managed? A well-designed organization that provides proper incentive is the general principle. It also gives the learners the insight on personal relationships. 2. Learn the role of contract law in business environment also gives the student the spirit of law-abiding. 3. To prevent held up by other partners, keep the ability of making inputs or downward services yourself. Know the hold-up problem and Apply it in the daily life </p>	<p>Lecturing</p>	<p>1, 2</p>
<p>7/Apr. 15 (45 mins) 8/Apr. 22 (90 mins)</p>	<p>Topic: Integration and Its Alternatives Content: The general definition of integration; Property Right Theory (PRT) of the firms Difficulty: to identify the trade-off between technical efficiency and agency efficiency Ethical and Political Learnings: with the thinking of PRT, students can consider the importance of completeness of contract and the cost of renegotiations.</p>	<p>Lecturing</p>	<p>1,2</p>
<p>9/Apr. 29 (45 mins) 10/May 6</p>	<p>Topic: Competitors and Competition Content: competitor identification and market definition; monopoly, monopolistic</p>	<p>Lecturing</p>	<p>1,2,3</p>

	competition, and oligopoly Difficulty: show the equilibrium and strategic behavior with mathematics and provide their economic intuition of each market.		
11/May 13 (90 mins) 12/May 20 (45 mins) 13/May 27 (45 mins)	Topic: Entry and Exit Content: Definition of entry and exit in industrial economics. Entry deterring strategies. Enter new market. Difficulty: Identify the difference between entry and exit barriers. The strategic analysis between entrants and incumbents;	Lecturing	1,2,3
13/May 27 (45 mins) 14/June 3 (90 mins)	Topic: Network effect and two-sided markets Content: explain what network effects and two-sided markets are. Difficulty: the common puzzle of two-sided market and possible implication of public policy. Ethical and Political Learnings: learning a viewpoint that beyond a typical market – a platform insight.	Lecturing	1,2,3
15/June 10 (90 mins) 16/June 17 (45 mins)	Topic: Review for final exam. Content: review all the theoretical and analytical tools that distributed in this course. Difficulty: provide the correct answer in a time constrained situation. Ethical and Political Learnings: emphasize the importance of no cheating in exam.	Lecturing/ Q&A	1,2
Total	32 hours (unit of 45 mins)		

Session Plan of Practical Hours:

Week/Date	Topic/Contents/Difficulty	Activities	LO
2/Mar. 11 (90 mins)	Topic: The analytical tools for strategic situations Content: Game theory Difficulty: Mathematic notations and computation of equilibrium Ethical and Political Learnings:	Lecturing	1, 2
5/Apr. 1	Topic: Zhejiang Geely: Acquisition of Volvo	Case	1, 3, 4

(45 mins) 6/Apr. 8 (90 mins)	<p>Cars.</p> <p>Contents: At the closing ceremony in March 2010 for Zhejiang Geely Holding Group's acquisition of Volvo Cars from the Ford Motor Company.</p> <p>Difficulty: applying the theory of firms to the case.</p> <p>Ethical and Political Learnings: Volvo was a key piece in Geely's long-term vision to build a global auto maker.</p>	Reading/ Discussion	
8/Apr. 22 (45 mins) 9/Apr. 29 (90 mins)	<p>Topic: Volvo Cars: Acquisition by Geely.</p> <p>Content: Studying the role of a acquired firm in the M&A case.</p> <p>Difficulty: Revert the theory of firms to the case to investigate why</p> <p>Ethical and Political Learnings: How a profit losing company protects his value and seeks for the corporation.</p>	Case Reading/ Discussion	2, 3, 4
11/May 13 (45 mins) 12/May 20 (90 mins)	<p>Topic: Threat from an emerging market multinational to a market leader</p> <p>Content: GEELY Versus FORD</p> <p>Difficulty: Applying analytical intuitions of game theory to the case</p> <p>Ethical and Political Learnings: How a market leading prevent the challenge of his position and how Chinese firm challenge the market leader.</p>	Case Reading/ Discussion	2, 3, 4
13/May 27 (45 mins) 14/June 3 (45 mins)	<p>Topic: Industrial analysis</p> <p>Content: Using Five Forces analysis to assessment of industry and firm performance.</p> <p>Difficulty: Identification of key factors affecting performance in vertical trading relationships and horizontal competitive relationships.</p> <p>Ethical and Political Learnings: determination of how changes in the business environment may affect performance.</p>	Lecturing/Ca se discussion	2, 3
15/June 10 (45 mins) 16/June 17	<p>Topic: Fostering an E-commerce Ecosystem</p> <p>Content: Alibaba Group</p> <p>Difficulty: Applying the tools of network</p>	Case Reading/ Discussion	2, 3, 4

(90 mins)	effect and two-sided market to the case Ethical and Political Learnings: learning on the determination of Alibaba's e-commerce ecosystem, the students will be able to know the largest Chinese platform more comprehensively and to acknowledge the Chinese business environment.		
Total	16 hours (unit of 45 mins)		
<p>Date: 2020.2.15</p> <p>Reviewed by Chih-Yuan Hung</p> <p>Signature </p> <p>Director of Department of International Business and Management</p>			