Department of Economics, HKUST
ECON 4114 Industrial Organization & Competitive Strategy
Course Outline

Instructor

Au, Pak Hung

Office: LSK 6069

Office hours: Mondays 3:00 – 4:00pm

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Course Webpage: https://canvas.ust.hk

Lecture time: Mondays 1:30pm – 02:50pm & 9:00am – 10:20am

Lecture venue : LSK 1007

Teaching Assistant

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Office: LSK 6066

Office hours: By Appointment

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Tutorial time: Tuesdays 1:00 – 1:50pm

Tutorial venue: LSK G001

Course Description, Objectives and Learning Outcomes

This course covers key aspects of an industry: market, firms, and regulator. Regarding the market aspect, we cover market structures, market power, and sources of market power. Regarding firm behaviors, we cover topics on pricing, quality, branding, and asymmetric information. From the regulator's perspective, we cover welfare, regulation, and competition policy. Particular emphasis is placed on game-theoretical models and their applications to real-world market interactions.

In terms of the Learning Goals Objectives (PILO) for UG courses, upon completing the course, students are expected to be able to

- Analyze and solve problems using appropriate analytical techniques (Goal 1.1)

- Deliver business problems analyses and ideas to stakeholders in English effectively (Goal 2.2)

- Demonstrate substantial knowledge of their business major to solve business problems (Goal 3.2)

- Apply business knowledge to deliver positive business and social impacts at local and international levels (Goal 4.2)

In terms of the Intended Learning Outcomes for MAEC and ECOF electives, upon completing the course, students are expected to be able to

- Critically evaluate practical economic models and exercise sound economic judgment in applying mathematical and economic principles to achieve justifiable solutions and making effective decisions supported by analytical and quantitative techniques (Learning outcome 1).

- Communicate quantitative and economic concepts and methods effectively to a range of audiences, both in oral and written forms (Learning outcome 2).

Textbooks

The following textbooks are recommended but not required.

- Industrial Organization, Markets and Strategies, by Paul Belleflamme and Martin Peitz, Cambridge University Press.

- Industrial Organization: A Strategic Approach, by Jeffrey Church and Roger Ware (downloadable at https://works.bepress.com/jeffrey_church/23/)

Prerequisite

Econ 3014 Managerial Microeconomics,
or
Econ 3113 & 3133 Microeconomic Theory I & Microeconomic Theory II
Familiarity with calculus and basic algebra is expected.

Assessment

Participation (3%)

You are expected to behave civilly in lectures, tutorial sessions, and office hours. Common-sense classroom etiquette, such as turning up on time and showing respect to the instructor, teaching assistant, and fellow students, is expected.

Problem Set (15%)

There are weekly problem sets. The score of the lowest one will be dropped. Group study/discussion is encouraged, but you have to turn in **your own written answers** (word-to-word copying is **not accepted**). Grading of problem sets is based on **effort instead of accuracy**.

Problem sets will be posted on Canvas every Monday, and due the following Monday. The more challenging questions will be discussed in the tutorials on Tuesdays.

(Goal 1.1, 2.2, 3.2, 4.2; Learning outcomes 1, 2)

Midterm Test (25%)

The midterm test is tentatively scheduled at the regular lecture time on **October 18**. The style is similar to questions in problem sets.

There is **no make-up test**. Students who miss the midterm test with a legitimate and documented reason will have the weight of the midterm test transferred to the final exam. Missing the test without a legitimate and documented reason will result in zero marks.

(Goal 1.1, 2.2, 3.2, 4.2; Learning outcomes 1, 2)

Final Examination (57%)

The final exam is **cumulative**. The style is similar to questions in problem sets.

The exam is centrally administered during December 9 – 20 and the date and time will be announced by the ARR.

(Goal 1.1, 2.2, 3.2, 4.2; Learning outcomes 1, 2)

Rubrics for Final Grades

A Range: Excellent Performance

Students demonstrate a strong grasp of course materials, effectively utilize tools introduced, excel in problem sets, and perform exceptionally on the midterm and exam. They display exceptional analytical skills, critical thinking, and effective class participation.

B Range: Good Performance

Students exhibit a solid understanding of course materials, proficient use of tools introduced, and competent completion of problem sets. They perform reasonably well on the midterm and exam. They show commendable analytical skills, effective critical thinking, and class participation.

C Range: Satisfactory Performance

Students demonstrate an adequate understanding of course materials, satisfactory use of tools introduced, and completion of problem sets. Their performances on the midterm and exam are fair. They display acceptable analytical skills and class participation.

D: Marginal Pass

Students show limited understanding of course materials, inconsistent use of tools, and incomplete performance in problem sets. They perform poorly on the midterm and exam. Their class participation is minimal.

F: Fail

Students display a lack of understanding of course materials, inadequate use of tools, and unsuccessful completion of problem sets. Their performances on the midterm and exam are disappointing. They show little to no participation in class discussions.

Regrading

In order to avoid problems associated with self-selection (grading mistakes that increase and decrease scores can happen, but only the one that decrease scores will be reported), disputes on individual questions will result in re-grading of the entire exam by the instructor. The re-graded score will be final and it may be higher or lower than the original one. Requests for re-grading must be submitted in writing to the instructor within one week since the score is first published.

Academic Honesty and Integrity

Academic integrity and honesty are key values of HKUST. Cheating and plagiarism are treated with **zero tolerance**. Please read the information on academic integrity carefully. It is your responsibility to be familiar with the Academic Honor Code and the content on the Academic Integrity website (http://www.ust.hk/provost/integrity). The Code is to be **strictly enforced**. All cheating cases are to be reported to the University **without exception**.

Outline and Schedule

1. Introduction and basic concepts (1 lecture)

   - Review of perfect competition and monopoly pricing
   - Measures of market power and welfare
     Suggested reading: BP Chapter 2; CW Chapter 1, 2, 4

2. Classical oligopoly models (3 lectures)

   - Theory of static games
   - Static oligopoly models
     Suggested reading: BP Chapter 3, Appendix A; CW Chapter 7, 8

3. Dynamics in oligopoly (5 lectures)

   - Theory of dynamic games
   - Dynamic oligopoly models

- Business strategies

  Suggested reading: BP Chapter 4, 16, Appendix A; CW Chapter 9, 13-16

4. Tacit collusion (4 lectures)

   - Theory of repeated games
   - Tacit collusion and antitrust

     Suggested reading: BP Chapter 14; CW Chapter 10

5. Sources of market power (4 lectures)

   - Product differentiation
   - Uninformed consumers

     Suggested reading: BP Chapter 5, 7; CW Chapter 11

6. Product pricing and quality (4 lectures)

   - Experience goods and firm reputation
   - Price discrimination: Market segmentation and menu pricing

     Suggested reading: BP Chapter 8, 9, 10, 13; CW Chapter 5,6

7. Vertically related markets (2 lectures)

   - Double-marginalization
   - Exclusive dealings

     Suggested reading: BP Chapter 17; CW Chapter 22