Econ 5110: Managerial Microeconomics  
Spring 2018 Syllabus  
Business School, HKUST

Instructor:
Xinyu Hua  
Department of Economics, HKUST  
Email: xybua@ust.hk  
Tel: 852-2358-7609

Course Web Site: canvas.ust.hk  
Email is always a great way to reach me.

Course Description and Learning Goals
Warren Buffet once said: “When an industry with a reputation for difficult economics meets a manager with a reputation for excellence, it is usually the industry that keeps its reputation intact.” Many managers fail to appreciate the numerous ways in which competition can destroy profitability. This course focuses on understanding individual economic behavior, competition, and market characteristics that are relevant to business and management. The learning objectives include:

- Use tools, concepts, and theories from microeconomics in performing demand and supply analysis.
- Non-strategic decisions: Explain the key trade-offs between high margin and high volume of sales in pricing decisions, and choose different pricing strategies according to industry or market conditions.
- Strategic decisions: Predict competitors' reactions using basic game theoretic method, and analyze the direct effect and the strategic effect of a firm's decision such as pricing, quantity, timing, new product introduction, contract design, etc.
- Identify the linkage between organization structure/Scope and market competition.

Learning Methods (Teamwork and Case Studies)
You are encouraged to follow the grouping made by the MBA office. The groups are responsible for working on the cases and the group assignments.

The approach toward teaching and learning managerial economics is primarily inductive. That is, you will learn many concepts and topics outlined above largely through cases, examples and some simple models – this is the essence of the case study method. Good cases are necessarily complex and ambiguous. In preparing for
case discussions, you may find sorting through this complexity and ambiguity to be frustrating. The problems presented in the case discussion may not have one correct answer. However, there will generally be a set of insights and solutions which are better than others. And it is in working through the messy details to find these insights and solutions – both in your own preparation and in class discussion – that the concepts and principles introduced in the readings and lectures will come alive and be enriched for you.

For a case discussion to be a valuable learning experience, it is essential that you come prepared to discuss the cases and readings assigned for that class. Finally, I ask that you deal with the cases as you find them; do not seek outside or post-case data on the firm or the industry.

**Brief Course Outline**
The table below gives an approximate outline of the course.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Required reading and preparation before class</th>
</tr>
</thead>
</table>
| Feb 3 PM | Introduction  
Market Demand | Notes on Demand Estimation  
Case on “Medicines Co.” |
| Feb 4 AM | Monopoly Market: Pricing | Case on “Uber Pricing Strategies” |
| Mar 3 PM | Monopoly Market: Pricing (Cont’d)  
Free Entry Market | Case on “T-Mobile in 2013”  
Group Assignment 1 due (before 2pm on Mar 3)  
Case on “Subsidies and Global Cotton Trade”  
Group Assignment 2 due (before 9pm on Mar 3) |
| Mar 4 AM | Oligopoly Market I: Game Theory and Strategic Decisions | Simulation on Universal Rental Car |
| Mar 17 PM | Oligopoly Market II: Strategic Decisions with Asymmetric Information |
| Mar 18 AM | Organization Structure and Market I:  
--Internal Structure and Incentives | Group Assignment 3 due  
Cases on “Alibaba Group” and “P&G Organization” |
| Mar 31 AM | Organization Structure and Market II:  
--Mergers and Acquisitions | Case on “Coca-Cola and Huiyuan” |
| Mar 31 PM | Exam |

**Assessment**
The grade is made up of five components:

1. **Final Exam (50%)**: The final will be an in-class exam on **Mar 31**. It will be a combination of a few mini-case questions.

2. **Group Assignment 1 (Written Assignment) (10%)**: On Mar 3 (afternoon), All groups please submit answers to a couple of questions (to be distributed later) and a demand curve constructed based on the case “Subsidies and Global Cotton Trade”.  

3. **Group Assignment 2 (Online Simulation) (10%):** After the first class meeting, a URL will be sent to the whole class. Each group should register before playing the simulation game. Please finish the game **by Mar 3 (before 9pm)**. The detailed instructions will be distributed later.

4. **Group Assignment 3 (Written Case Analysis) (15%):** At the beginning of the class on **Mar 18**, some groups will submit a written report on the case “Alibaba Group” and the other groups will submit a written report on the case “P&G Organization”. Please submit your analysis in PowerPoint format (**No more than 20 slides**). Some groups will be selected to make 20-min presentation in class on Mar 18.

5. **Class Participation and Contribution (15%):** Learning opportunities are maximized when students are actively engaged in discussion. Active engagement means that you’re are **listening carefully** to the comments of other students and seeking opportunities to make comments that move the class discussion forward. Class participation will be evaluated primarily on (1) the effort and incentives to prepare and to participate in class discussion, and (2) the evaluation of content:

- Relevance: Are your comments related to the case and to the comments of others?
- Fact-Based: Have you used specific data from the case, from readings, or from personal experience to support the assertions that you are making?
- Logical: Is your reasoning logical? Do you use economic concepts correctly?

**What Materials Will We Use?**
The key materials are the lecture notes, cases, and additional readings. Due to copyright, you should not distribute these materials outside our class.


**HKUST Academic Integrity and Honor Code**
The HKUST Academic Integrity and Honor Code apply to this course. The complete text of the Academic Integrity and Honor Code is available on the websites:

- [http://www.ust.hk/vpaao/integrity](http://www.ust.hk/vpaao/integrity)
- [http://www.ust.hk/vpaao/conduct/good_learning_experience.pps](http://www.ust.hk/vpaao/conduct/good_learning_experience.pps)

The assignment must be strictly your group’s original work. You may not discuss these assignments with any person other than your group members. If your analysis contains any information from outside sources, you must properly cite the sources.

**Classroom Etiquette**

Students are expected to arrive for class on time and the instructor will start and end the class according to schedule. Students should demonstrate respect for the instructor and fellow students during the class period. **Please try to avoid side conversations when your classmates raise questions or give comments.**
Course Outline (Details)

It is important to recognize upfront that this class cannot be as perfectly organized as the outline suggests. This is not accounting or statistics which begin with core, universally accepted principles, and then build to harder problems and applications. Instead, managerial economics is complicated throughout, and we may adjust the detailed topics or learn new tools throughout the course to answer new questions.

Optional Readings (Not Required):
Students who have not been exposed to microeconomics at all or would like to learn more mathematical analysis are encouraged to read the following background materials (notes available on the course website):

1. “A Note on Cost Functions and Cost Curves”;
2. “A Note on Demand Functions and Demand Curves”;
3. “A Note on Market Equilibrium and Competitive Market Equilibrium”;

Week 1 (Feb 3) PM:

a) Introduction

b) Demand

Customer Value, Demand Curve, and Price Elasticity
Factors Affecting Demand
Demand v.s. Economy of Scale

Case: Medicines Co. (HBS)

Reading: Course Site: Notes on Demand Estimation
Png, Chapter 2, Chapter 3 (optional)

Week 1 (Feb 4) AM:

a) Monopoly Market/Power: Pricing

Uniform Pricing Methods
Direct Segment Price Discrimination
Indirect Segment Price Discrimination

Case: Uber Pricing Strategies and Marketing Communications

Reading: Png, Chapter 8 (pp.267-277, 288-289) (optional)
Chapter 9 (pp.313-323, 327-340) (optional)

Week 2 (Mar 3) PM:

a) Monopoly Market/Power: Pricing (Cont’d)

Case: T-Mobile in 2013 (HBS)
b) Free/Easy Entry Market

Firm’s Supply Decisions: Costs and Capacity
Demand-Supply Analysis

Case: Subsidies and Global Cotton Trade (HBS)

Reading: Png, Chapter 4 (pp.105-121, pp.125-128), Chapter 5 (optional)

Week 2 (Mar 4) AM:

a) Oligopoly Market I: Game Theory and Strategic Decisions

Game Theory and Nash Equilibrium
Price, Quantity/Capacity, Advertising, New Product Introduction

Tools: Spreadsheets for Solving Oligopoly Price or Quantity Competition

Simulation: Universal Car Rental (HBS)

Reading: Png, Chapter 10 (pp. 349-357, 367-381) (optional)
BDSS, Chapter 5 (pp.180-192), Chapter 7 (optional)

Week 3 (Mar 17) PM:

a) Oligopoly Markets II: Strategic Decisions with Asymmetric Information

Asymmetric Information and Quality

Reading: Png, Chapter 12 (pp.431-442) (optional)

Week 3 (Mar 18) AM:

a) Organization Structure and Market I: Internal Structure and Incentives

Case and Group Presentations: Alibaba Group and P&G Organization (HBS)

Reading: BDSS, Chapter 13 (Optional)

Week 4 (Mar 31) AM:

a) Organization Structure and Market II: Mergers and Acquisitions

Economy of Scale/Scope and Impacts on Market Competition

Case: Coca-Cola and Huiyuan (HKU)

Reading: BDSS, Chapter 2 (pp.61-82) (Optional)