SCHOOL OF ECONOMICS
SINGAPORE MANAGEMENT UNIVERSITY

Course Title
Term I 2014
Industrial Organization

Instructor
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Course Overview

This course introduces the modern theory of industrial organization. Industrial organization mainly studies firms and markets, and in particular explores commonly-observed strategic interactions among firms. The related topics include monopoly, oligopoly, cartel, implicit collusion, price discrimination, and many others. In this course, we are particularly interested in monopoly pricing and oligopoly pricing under environments where information is imperfect and interactions of firms are repeated over time.

Course Objectives

The objective of this course is to present an overview of modern industrial organization theory and some recent development in the literature.

Class Sessions

Class sessions are of 3-hour duration per week.

Assessment & Evaluation

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Participation</td>
<td>20%</td>
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<tr>
<td>Homework</td>
<td>40%</td>
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<tr>
<td>Final</td>
<td>40%</td>
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Textbook and Lecture Note


This book provides an overview of modern Industrial Organization. Most of readings below are surveys or papers on which Tirole’s presentation is less complete or dated. Using the required readings, we will study some particular topics in greater detail. The items with asterisk (*) are especially recommended to read.

- Lecture Note: the lecture note is self-contained and comprehensive. You will be able to download it from the e-learning website.
## Course Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Chapter</th>
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</table>
| 1    | Introduction  
Monopoly Pricing:  
- Durable Goods Monopoly  
Nonlinear Pricing:  
- Two-Type model  
- Continuous-Type Model | Lecture note 1 |
| 2    | Markets with Imperfect Quality Information:  
- Signaling model | Lecture note 2 |
| 3    | Cournot and Bertrand Competition:  
- Properties of Equilibrium  
- Free-Entry Equilibrium  
Strategic Behavior: Entry Deterrence | Lecture note 3 |
| 4    | Oligopoly Pricing with Imperfect Price Information:  
- Diamond paradox  
- Price Dispersion | Lecture note 4 |
| 5    | Oligopoly Pricing with Imperfect Price Information:  
- Diamond paradox  
- Price Dispersion  
Oligopoly Pricing with Private Information | Lecture note 5 |
| 6    | Collusion:  
- Prisoner's Dilemma  
- Collusion Models | Lecture note 6 |

## References:
The literature used in this class can be listed as follows.

1. **Introduction**
   Lecture note and Tirole, Introduction and Chapter 11

2. **Monopoly Pricing and Nonlinear Pricing**
   Lecture note and Tirole, Chapter 1 and 3.

3. Markets with Imperfect Quality Information
Lecture note

4. Cournot and Bertrand Competition
Lecture note and Tirole, Chapter 5.

5. Bertrand Competition with Product Differentiation: Location models
Lecture note and Tirole, Chapter 7.

6. Strategic Behavior : Entry Deterrence
Lecture note Tirole, Chapter 8 and 9.
7. Oligopoly Pricing with Imperfect Information
Lecture note

8. Collusion: Repeated Games
Lecture note and Tirole, Chapter 6.