

Topics in Advanced Microeconomics

Semester II 2015-2016

Course Description

This course is an introduction to industrial organization, which studies the performance of different kinds of markets and the behavior of firms in these markets. The the main focus of this course will be on basic theoretical models. This course will cover topics such as market concentration measures, perfect competition, monopoly theories, Cournot and Bertrand competition in oligopoly markets, collusion or cartels, product differentiation, horizontal and vertical mergers, networks, etc.

Lecture

Wednesday 9:50 to 12:15, Week 1 to 12, at 5-106

Instructors

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Prerequisites

- Good understanding of intermediate level of microeconomics
- Basic knowledge of game theory
- Fundamental knowledge of mathematics (e.g., calculus and probability)

Main Textbooks

1. Peppal, L., D. Richards, and G. Norman. 2008. Industrial Organization: Contemporary Theory and Empirical Applications.

Other References

1. Church, J. and R. Ware. 2000. Industrial Organization: A Strategic Approach.
2. Carlton, D. and J. Perloff. 2005. Modern Industrial Organization, Pearson-Addison Wesley.

Topics

1. Introduction
 - market definition, concentration measures
2. Costs (review)

- Various types of costs (opportunity cost, fixed cost, variable cost, marginal cost, average cost, sunk cost, etc.)
3. Perfect competition
 - equilibrium (in short run and in long run)
 - efficiency (consumer surplus, producer surplus and welfare)
 4. Monopoly
 - monopoly pricing: inverse-elasticity rule (and Lerner index)
 - price discrimination: first-degree (or perfect), second-degree and third-degree
 - other strategies: non-linear pricing, tie-in sales, bundling
 5. Game theory (review)
 - Basic concepts: normal form game, extensive game, best response, dominant (dominated) strategy
 - Solution concepts: Nash equilibrium, subgame perfect equilibrium
 6. Static oligopoly
 - Cournot competition (quantity competition)
 - Bertrand competition (price competition)
 7. Dynamic oligopoly
 - Stackelberg model
 - Entry deterrence
 8. Collusion and cartels
 - Bertrand (Cournot) competition in repeated games (finite v.s. infinite)
 - Folk theorem
 9. Product differentiation
 - Horizontal differentiation: good approach (e.g., quadratic utility model), address approach (e.g., Hotelling model), and discrete choice model
 - Vertical differentiation: quality model
 - Monopolistic competition
 10. Mergers
 - Horizontal mergers
 - Vertical mergers

11. Networks

Assessment

- 30%: Two Assignments
- 70%: Final Exam (close book)