

16E032

Industrial Organization

6 ECTS

Overview and Objectives

From its origins, Industrial organization (IO) primary focus has been the study of imperfect competition and the organization of markets. However, IO models and tools have also been used in a much wider range of topics such as Health Economics, Law & Economics, Finance, Economics of Innovation, etc. In particular, IO focuses on how firms and consumers behave in various market structures ranging from monopoly to different types of oligopoly. Therefore, IO is also closely related to Managerial Economics and Marketing.

The course is designed to familiarize students with classic as well as recent developments in IO. The first part focuses on the theory of IO predominantly using game theoretical tools. The second part covers empirical work in IO, which has grown exponentially in the recent decades thanks to the combination of modern econometric tools with serious economic theory models and the availability of consumer and firm level datasets.

A wide variety of students may be interested in the class. Students interested in strategic behavior and issues related to information will benefit. These skills are useful well outside IO, with recent uptake in Macro and International Trade where careful modeling of market imperfections as well as strategic consideration has become a norm. The empirical part introduces students to several estimation techniques and possible applications.

Course Outline

First Part: Theory Taught by Sandro Shelegia

1. Monopoly pricing. Price discrimination.
2. Imperfect competition
 - 2.1. Static competition (Bertrand, Cournot, Kreps-Scheinkman).
 - 2.2. Dynamic aspects (Stackelberg model, Entry)
 - 2.3. Product differentiation. (Horizontal: Hotelling, Salop, Perloff-Salop, Vertical: pricing, quality choice).
3. Market frictions and asymmetric information.
 - 3.1. Quality signaling. Quality disclosure and certification. (optional).
 - 3.2. Consumer side frictions. Search (Stahl and Wolinsky models). Switching costs.
4. Vertical relations: double-marginalization, exclusive dealing, mergers.
5. Network goods, two-sided markets (optional).

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Second Part: Empirical Industrial Organization.

Taught by Rosa Ferrer and Christian Michel.

1. Marginal Cost and Measures of Market Power
2. Demand Estimation
 - 2.1. Demand estimation in homogeneous products industries
 - 2.1. Demand estimation in differentiated products industries: AIDS, Logit, Nested Logit
 - 2.2. Extensions of the standard demand model (dynamics and unobservable characteristics)
 - 2.3 Applications
3. Estimation of Market Power
 - 3.1. Conduct estimation in homogeneous products industries
 - 3.2. BLP and marginal cost estimation
 - 3.3. Instrumental variables in the context of empirical industrial organization
 - 3.4. Estimation of markups and counterfactual policy simulations
 - 3.5. Estimation of Industry Conduct in differentiated products industries
 - 3.6. Alternative approaches for estimating market power

Required Activities

Students will hand in 3-4 problem sets and write a final exam consisting of two parts. Problem sets count 30% of the grade, the exam counts 70%, each part splits equally between theory and empirics-applications.

Evaluation

Problem sets, 30%. Exam, 70%

Materials

Andersen, de Palma and Thisse, "Discrete Choice Theory of Product Differentiation".

Armstrong, Mark, and Robert H. Porter, eds. "Handbook of industrial organization," Vol. 3. Elsevier, 2007.

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Belleflamme, Paul, and Martin Peitz. "Industrial organization: markets and strategies," Cambridge University Press, 2015.

Tirole, Jean. "The theory of industrial organization," MIT press, 1988.

*Leading academic articles in the topics covered.