Empirical Industrial Organization

This is an advanced course in Industrial Organization. This outline is tentative and may be revised depending on class needs. Please see class the handouts for a complete and updated list of references.

The final grade will be computed as follows (in brackets, fraction of final grade):

- Final exam (70%)
- Problem sets (25%)
- Presentations and class participation (5%)

If you have any questions, please do not hesitate to contact me.

General Description

This is an advanced course in Industrial Organization. This course is designed to bridge between theory and empirics. In this course, our goal is to understand how empirical models in the structural IO literature arise naturally from the theoretical literature. We will also place special emphasis in learning how to identify and formulate economic questions. With this aim, the course will be structured around frontier topics in Industrial Organization.

Throughout the course, we will follow this structure: First, we will identify the economic (Industrial Organization) question that we want to address and determine which tools are needed to answer it. This will often lead us to follow an ordered sequence. We will start by analyzing the main models in the theoretical literature that have asked our question (or part of it) and identify the assumptions that these models are built upon and the findings that they can deliver. This will be important, as it will allow us to identify the theoretical findings that our empirical model should embody. We will then work on developing an empirical model, drawing from the key empirical contributions in the Industrial Organization literature, and placing special emphasis on highlighting how our model can embody existing theoretical work. We will also address why a structural empirical approach may or may not be necessary. Lastly, we will discuss the models' computational requirements and its empirical implementation. Among the topics covered, we will include IO topics that bridge between different fields in Economics and that belong to very active research fields.

- 1. Introduction: Research Questions in Applied Industrial Organization
- 2. Cost and Production Function
- 3. Empirical Models of Demand
- 4. Empirical Models of Supply and Demand
- 5. Dynamic Empirical Models
- 6. Topics:
 - a. Price Discrimination
 - b. Dynamic Problems: Durability, Storability, Intertemporal Consumption
 - c. Behavioral Models: Applications to Advertising and Product Development