Course Description

This course is a continuation of Econ 7010. In that course you studied the behavior of individual consumers and firms. In this course we will explore the economic behavior of collections of firms and/or consumers. We will study models of interactions between groups of optimizing agents.

At first we will consider small numbers of consumers and/or firms. This will include a discussion of duopoly and game theory. We will then turn to several models which involve many interconnected markets. We will analyze models in which consumers exchange goods with each other, either with or without firms in the economy. We will explore the behavior of so-called perfect competition, and also discuss desirable features of an economic system. At the end of the course we will consider some topics in Welfare Economics, including public goods and externalities.

Course Requirements

You must have taken Econ 7010 before taking this course. Your grade will be based on two exams, a group project and homework. I encourage you to discuss the homework with other students in the class; but you must write your answers individually. The weights are as follows:

- Homework: 20%
- Project: 10%
- Midterm: 20%
- Final: 50%

Textbooks


MODELING COMPETITIVE SITUATIONS (K)
11.1 Games in Extensive Form: An Example
11.2 Games in Extensive Form: Formalities
11.3 Games in Normal or Strategic Form
11.4 Mixed Strategies and Kuhn's Theorem

SOLUTION CONCEPTS FOR NON-COOPERATIVE GAMES (K)
12.1 Opening Remarks
12.2 Dominance
12.3 Backwards Induction
12.4 Nash Equilibrium
12.5 Equilibria in Mixed Strategies
12.6 Why might there be an obvious way...?
12.7 Refinements

IMPERFECT COMPETITION (K)
10.1 The Classic Models of Duopoly
10.2 Discussion
12.8 Reprise: Duopoly

GENERAL EQUILIBRIUM THEORY AND WELFARE ECONOMICS (V)
5.1 Agents and Goods
5.2 Walrasian Equilibrium
5.3 Graphical Analysis
5.4 Existence
5.5 Welfare Properties
5.6 Pareto Efficiency and Calculus
5.7 Welfare Maximization

TOPICS IN GENERAL EQUILIBRIUM THEORY (V)
6.1 Equilibrium and Production
6.2 General Equilibrium over Time
6.4 General Eqm. over States of Nature
6.5 The Core of an Exchange Economy
6.6 Convexity and Size
6.7 Uniqueness of Equilibrium

TOPICS IN WELFARE ECONOMICS (V)
7.1 Public Goods
7.2 Truthful Revelation of Preference
7.3 Externalities
7.4 Consumers' Surplus
7.5 Measurement of Economic Welfare
7.6 Optimal Pricing
7.7 Quasi-Linear Utility Functions