R100 Microeconomics

Aims and Objectives

This course will cover the standard economic models of individual decision-making with and without uncertainty, models of consumer behaviour and producer behaviour under perfect competition and the Arrow-Debreu general equilibrium model.

The course will build the foundations for, and then culminate in, a theory of markets and Adam Smith's "invisible hand." We start with people's underlying preferences and see how when these preferences can be represented in a more tractable form by utility functions. Historically, two major questions motivated this exercise. First, utilitarian philosophers were trying to formulate a theory of social choice and government decision making, while economists were trying to better understand the insights of Adam Smith by formalizing a theory of markets.

Utilizing this theory of choice under certainty we will see how consumption decisions translate into demand and extend the theory to choice under uncertainty. With these results in hand, we move onto general equilibrium and how markets can simultaneously clear. This leads us to the welfare theorems, linking efficient outcomes to markets, and results on the existence of a competitive (Walrasian) equilibrium. The final part of the course critically analyses the assumptions underlying the welfare theorems, paying particular attention to the problems that arise when there is asymmetric information such that different actors in the economy know different things when interacting with each other.

Tentative Course Plan

1. Choice Theory: Preferences, Choice and Utility
    Topics: Preferences, Choice and Revealed Preference, Utility Representation of Preferences, Properties of Preferences, Criticisms of Rational Choice Models, Consumer Theory, Producer Theory.
2. Choice under Uncertainty
    Topics: Expected Utility Model, Risk aversion, Stochastic Dominance, Applications and Comparative Statics Analysis, Savage Model, Behavioral Critiques.
3. General Equilibrium
    Topics: Concepts and Definitions, Welfare Theorems, Characterizing Equilibrium Allocations, Existence of General Equilibrium, Uniqueness and Stability of Equilibrium, Comparative Statics, Extensions to the Basic Model, Limitations of the Welfare Theorems---Externalities and, in particular, Asymmetric Information.

Assessment
The examination for this module will be by a 2-hour written exam

Readings

A booklet will be provided that closely follows and supplements the slides from lectures. This is the primary reading for the course. There are also two excellent and well-known microeconomics textbooks:

Mas-Colell, A., M. Whinston and J. Green, Microeconomic Theory, 1995. Kreps,

D., A Course in Microeconomic Theory, 1990.

The two books have different styles: MWG has the broadest coverage and is fairly concise; Kreps is more chatty.

Additional readings, pertinent to particular topics, will be provided in lectures.