

DELHI SCHOOL OF ECONOMICS

Course 001: Microeconomic Theory

Summer Semester, 2014

Module 1: Parikshit Ghosh

Email: pghosh@econdse.org

Course Website: <http://econdse.org/pghosh-001>

Overview

The purpose of this course is to give students a rigorous introduction to modern microeconomic theory. It is designed to fulfill three objectives. First, you should develop a sound understanding of the core *concepts* that economists use to understand the world of business, trade and public policy. By the end of the course, thinking like an economist should become your second nature. Second, the course will familiarize you with the mathematical *techniques* that economists routinely use in their analysis. Modern economics makes heavy use of mathematics and statistics that advanced students must master. Finally, we will try to illustrate the usefulness of the abstract ideas and concepts introduced in the course with the aid of suitable *applications* to real world problems.

Prerequisite

Students are expected to have taken an undergraduate course in microeconomics, and should be familiar with basic concepts like demand, supply and market equilibrium. However, I will try to make the course as self contained as possible. Even the basic concepts and building blocks will be covered, albeit at a deeper and more technical level than you may have seen before. I will also assume familiarity with certain mathematical techniques, especially calculus and real analysis. The maths tutorial, running concurrently, will give you further mathematical training. If you have any doubts about your technical knowledge for the purpose of this course, please discuss the issue with me.

Reading

The main textbook for the course is:

- Jehle, Geoffrey and Philip Reny: *Advanced Microeconomic Theory*. Addison Wesley, 2001. (JR)

There is an affordable Indian edition available in the market. In addition, the more advanced text listed below can also be a useful reference on some topics.

- Mas-Collel, Andreu, Michael Whinston and Jerry Green: *Microeconomic Theory*, 2nd ed. Oxford University Press, 1995. (MWG)

I will not follow the exposition and style of these books exactly. They should be read as complements to the class lectures. I will provide you with some supplementary material like lecture slides and notes. From time to time, I will prescribe shorter, non-technical readings such as newspaper or magazine articles, or provide links to interesting webpages. These will be chosen to illustrate how the theoretical ideas can help us better understand real world issues and debates.

Syllabus

Topic 1. Prices, Markets and Efficiency

Voluntary exchange, Pareto efficiency, quasilinear utility, cost functions, demand and supply, market equilibrium, comparative statics, taxes and subsidies, public goods, externalities. J&R, Ch 4.1, 4.3.

Topic 2. Choice theory and Consumer Demand

The axiomatic approach, utility representation, demand and expenditure functions, duality, Slutsky decomposition, testable implications. J&R, Ch 1.

Topic 3. Production, Costs and the Firm

Production possibility sets, cost minimization and profit maximization, input demand and output supply, non-profit motives. J&R, Ch 3.

Topic 4. Monopoly

Profit maximization, deadweight loss, price discrimination, monopolistic screening.

Topic 5. Choice under Uncertainty

The von-Neumann-Morgenstern axioms and expected utility theory, risk aversion, portfolio choice. J&R, Ch 2.4.