EP 407: General Equilibrium Analysis

Instructor: Prof. Manimay Sengupta

Room # 344, SSS-II. Contact Hours: Mon 9.00-10.00 am Wed 10.00-11.00 am
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1 Course Description

The purpose of this course is to acquaint students with the theoretical models of general equilibrium analysis. The course will be based on a set of topics developed on the basis of one or two important papers in the area. In addition, the discussion of the topics will utilize one or more of the texts in this area. Reference to the topics and the related papers and the texts is given below. The goal is to provide the students with material that enables them to have a sound basis of the theoretical results in the area of general equilibrium analysis, which they will then be able to bring to bear upon any economic analysis, theoretical or empirical, that they may undertake in their future studies.

The course is divided into two sections:

(1) General Equilibrium under Certainty;
(2) General Equilibrium under Uncertainty;

2 Evaluation Method

There will be a Mid-semester and a final examination. The weights on these assessments are as follows:
Mid-Semester Examination: 40%
Final Examination: 60%.

3 Main References

The course will utilize the following texts in different parts of our work. The main reference will be:

In addition, the following texts will be used variously in the course:


Hahn, F.H., "Stability", Vol. II.
Varian, H.R., "Dynamical Systems with Application to Economics", Vol. I.
Radner, R., "Equilibrium under Uncertainty", Vol. II.
Magill M. and W. Shafer, "Incomplete Markets", Vol. IV.

The following texts and articles have summary reviews of most of the mathematical concepts we shall use.

Hildenbrand, W., and A.P. Kirman, Equilibrium Analysis, Amsterdam: North-Holland, 1988, Mathematical Appendices.

Topics (with brief descriptions and respective readings)

Section 1: General Equilibrium Under Certainty

A. The Structure and Form of General Equilibrium Analysis


B. The Existence of Competitive Equilibrium


C. Welfare Properties of Competitive Equilibrium


D. General Equilibrium and the Core of an Economy

Hildenbrand, W., "Core of an Economy", Handbook of Mathematical Economics, Vol. II.

E. The Uniqueness of Competitive Equilibrium

Arrow, K.J. and F.H. Hahn, General Competitive Analysis, 1971.

F. The Stability of Equilibrium


Section 2: General Equilibrium under Uncertainty

A. Equilibrium with State-Contingent Markets


B. Sequence Economies and the Radner Equilibrium


C. The Fundamental Theorem of Asset Pricing and the Equivalence of Arrow-Debreu and Radner Equilibrium


Laffont, J.-J., The Economics of Uncertainty and Information, Massachusetts: MIT Press,
1989.

D. Equilibrium with Incomplete Markets