

References

Main Textbooks

1. Andreu Mas-Colell, Michael D. Whinston and Jerry R. Green: Microeconomic Theory
There is a solution manual for the exercises in this book, written by Hara, Segal and Tadelis
2. Hal R. Varian: Microeconomic Analysis.
There is a solution manual for the exercises in this book. Gary Yohe: Exercises and Applications for Microeconomic Analysis
3. David M. Kreps: Microeconomic Foundations I. Choice and Competitive Markets

Textbooks

1. Donald E. Campbell: Resource Allocation Mechanisms
2. W.D.A Bryant: General Equilibrium, Theory and Evidence
3. Arrow, Hahn: General Competitive Analysis
4. Donald Brown, Felix Kubler: Computational Aspects of General Equilibrium Theory. Refutable Theories of Value
5. Michael Magill, Martine Quinzii: Theory of Incomplete Markets, Vol. 1
6. Atkinson, A. and Stiglitz, J: Lectures on Public Economics
7. Gareth D. Myles: Public Economics
8. Geoffrey A. Jehle and Philip J. Reny: Advanced Microeconomic Theory

Undergraduate textbooks

1. Hal R. Varian: Intermediate Microeconomics
2. Samuel Bowles: Microeconomics: Behavior, Institutions, and Evolution

Big picture books

1. Joseph E. Stiglitz: Whither Socialism?
2. Milton Friedman: Capitalism and Freedom

Optimization/convexity

1. Simon and Blume: Mathematics for Economists
2. Cambini, Martein: Generalized Convexity and Optimization
3. [optimization course](#)

Vector optimization (Pareto optimality)

1. Jared L. Cohon: Multiobjective Programming and Planning
2. Vira Chankong, Yacov Y Haimes: Multiobjective Decision Making: Theory and Methodology

Convexity/fixed point theory

1. Hukukane Nikaido: introduction to sets and mappings in modern economics
2. Roger Webster: convexity
3. Kim Border: Fixed Point Theorems with Applications to Economics and Game Theory

Lecture notes

[e-class](#)

[Kim border](#)

[Gallier: basic mathematics](#)

[Pivato](#)

[Quah](#)

Topics

Producer Theory

Production Sets, production functions, profit maximization
Testable implications of producer theory (WARP)
Properties of indirect profit/net supply functions
Representative producers.

Consumer theory

Preferences, utility functions, utility maximization.
Testable implications of consumer theory (WARP, GARP, SARP)

Properties of indirect utility functions

Properties of individual excess demand functions (H-W-B-SARP)

Properties of market excess demand functions (H-W-B - but not always SARP or WARP)

Positive and normative representative consumers.

Competitive equilibrium

Definition: computational examples, competitive equilibrium with taxes and lump-sum transfers

Special cases: (1x1x2 economy, 2x2x2 economy, exchange economy, small open economy, economies of Leontief and von Neumann).

Existence: large non-convexities relative to market size, non-interior endowments.

Uniqueness: WARP and constant returns to scale, WARP in an exchange economy, taxes, externalities, economies with an arbitrarily large number of equilibria, economies with Pareto-ranked equilibria.

Stability: WARP in an exchange economy, substitutes and complements, wealth effects, economies with a unique and unstable equilibrium.

Comparative statics: substitutes and complements, wealth effects, the transfer paradox the paradox of productivity, the paradox of piecemeal policy reforms, the paradox of immiserating growth.

Testable implications: level of aggregation, externalities, testability of local stability and uniqueness.

Welfare analysis

Pareto efficient points: definition, examples, two methods of calculation

First and second welfare theorems: conditions for efficient equilibria, interactions between efficiency and distribution

Distortions (third welfare theorem): efficiency when different agents face different relative prices

Compensatory distortions (second-best theorem)

Equilibrium with externalities/public goods: The four kinds of externalities, market and non-market corrections.

The national income test: national income as an index of welfare, with and without distortions.

Evaluation

Take-home exam.

When studying, you should try to construct an example and a counterexample of each new concept. Write a one-page summary of each lecture, and then write a one-line summary of the summary. Try to organize the material taking competitive equilibrium as the central concept. Think of all other equilibria as variations of competitive equilibrium, in the sense that they retain the basic engine (mutually consistent optimization), but change one of the other, auxiliary, assumptions that competitive equilibrium makes. Solving exercises is essential. The web site for this course contains past exam questions together with solutions.