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. Atkinson, A. and Stiglitz, J: Lectures on Public Economics
5. Gareth D. Myles: Public Economics
6. Geoffrey A. Jehle and Philip J. Reny: Advanced Microeconomic Theory

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

Testable implications of producer theory (WAPM)
Aggregation problem: Representative firms.

Consumer theory

Testable implications of consumer theory (WARP, GARP, SARP)
Properties of individual excess demand functions
Properties of market excess demand functions
Aggregation problem: 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, in-class exam.