General References

The primary reference is


Other references are:


Syllabus

1. Classical Consumer and Producer Theories (Mas-Colell et al.’s Chapters 2-5):
   - Choice-based consumer theory and the weak axiom of revealed preference.
   - Preference-based consumer theory and utility.
   - Duality.
   - Aggregation.
   - Producer theory.

   - General equilibrium: exchange and production.
   - Equilibrium, efficiency and the core: the welfare theorems.
   - Existence of equilibrium.
   - Local uniqueness and regular economies.
   - Arbitrary aggregate excess demand.
   - General equilibrium under uncertainty.
   - Social choice.
List of Topics


Class 2: Comparative statics of demand. Wealth and price effects. The matrix of price effects. Restrictions on wealth and price effects: Euler’s condition, Engel and Cournot aggregation conditions. The weak axiom of revealed preference (WARP).

Class 3: Implications of WARP. The compensated law of demand. Substitution effects. Differentiable version of the compensated law of demand: the negative semidefiniteness of the Slutsky matrix and the Slutsky equation.

Class 4: Is the Slutsky matrix symmetric? The singularity of the Slutsky matrix. WARP and preference maximization.

Class 5: Classical preference-based demand theory. The preference relation and its properties. Completeness, transitivity, desirability and convexity properties.

Class 6: Utility representation of preferences. Continuous preference relations and representability.

Class 7: The utility maximization problem and its solution. Walrasian or ordinary demand correspondence. Properties of the demand correspondence. The indirect utility function.


Class 9: Relationship between the expenditure and the indirect utility functions. The Hicksian or compensated demand correspondence. Properties of the compensated demand. Hicksian demand and the compensated law of demand.

Class 10: The Slutsky matrix when derived from preference maximization. Substitution effects revisited. The negative semidefiniteness, symmetry and singularity of the Slutsky substitu-
tion matrix. Relation between Walrasian demand and the indirect utility function: Roy’s identity.

Class 11: Integrability. Recovering the expenditure function from demand. Recovering preferences from the expenditure function. The strong axiom of revealed preference (SARP).


Class 13: Producer theory. Production sets and their properties. The profit maximization problem. The supply correspondence and the profit function. The single output case: production function and conditions for profit maximization.


Class 15: A partial equilibrium introduction to general equilibrium. Quasilinear preferences and small wealth effects. Competitive allocations in a partial equilibrium model: existence, uniqueness, welfare properties (Marshallian consumers’ and producers’ surplus).


Class 17: The first welfare theorem. Price equilibrium with transfers. The importance of local non-satiation for the first welfare theorem. Price quasiequilibrium with transfers. The strong version of the first welfare theorem: the market and the “jungle.”

Class 18: The second welfare theorem. The importance of convexity to establish that any Pareto efficient allocation can be supported by a price quasiequilibrium with transfers. Positive
wealth and the relationship between price quasiequilibria and price equilibria. The core convergence theorem.

Class 19: Existence of Equilibrium. The equilibrium as the zero of a system of equations. Properties of the aggregate excess demand. A graphic existence proof based on the intermediate value theorem. The equilibrium as a fixed point. Proof of existence based on Brouwer’s fixed point theorem.


Class 21: Uniqueness of equilibrium. WARP in the aggregate. Why WARP in the aggregate is now an even stronger condition (wealth distribution as a function of prices). The gross substitutes property. Comparative statics and stability of equilibrium.

