This will be basically a textbook course, will an emphasis on exercises and problem solving.

Assessment for the course will consist of four problem sets (10% each), one mid-term exam (30%) and a final exam (30%).


**Outline**

1. **Math Review**

   BH, Chapters 1-3

   Class lectures will assume basic knowledge of linear and non-linear functions, but will review:
   - (a) unconstrained and constrained optimization
   - (b) first and second-order conditions.
   - (c) implicit function theorem
   - (d) envelop theorem
   - (e) comparative statics
2. Preferences and Demand

BH, Chapters 5, 6, 8

(a) preferences and utility
(b) comparative statics
(c) Marshallian (uncompensated) demand functions
(d) Hicksian (compensated) demand functions
(e) the indirect utility function
(f) the expenditure function

3. Applied Welfare Economics

BH, Chapter 8
Deaton and Muellbauer, Chapter 8

(a) consumer surplus
(b) compensating variation
(c) equivalent variation
(d) revealed preference and index numbers

4. General Equilibrium in an Exchange Economy

BH, Chapter 7

(a) general equilibrium
(b) first theorem of welfare economics
(c) second theorem of welfare economics

5. Market Demand and Aggregation

BH, Chapter 9
DM, Chapter 6.

(a) aggregation of individual demands
(b) composite commodity theorem
(c) two-stage budgeting
6. **Production, Cost, and Supply**

BH, Chapters 10-12

(a) production functions,
(b) input demands, output supply
(c) cost functions
(d) duality and the profit function
(e) short and long run

7. **Market Equilibrium**

BH, Chapter 13

(a) existence, stability, uniqueness
(b) Ricardian rent, externalities
(c) tax incidence

8. **General Equilibrium**

BH, Chapter 14

(a) general equilibrium in a two-by-two model
(b) convexity and production efficiency
(c) goods and factor prices
(d) GNP functions
(e) non-convex economies, increasing returns to scale
(f) open economies and the gains-from-trade theorem

9. **Imperfect Competition**

BH, Chapters 15, 16

(a) monopoly, marginal revenue
(b) welfare
(c) applications: price discrimination, peak-load pricing, regulation
(d) simple games, Nash equilibria
(e) Cournot and Bertrand equilibria
(f) Monopolistic Competition and product diversity
10. Intertemporal Decisions and Capital Markets

BH, Chapter 18

(a) preferences, budget constraints, and capital markets
(b) interest rates, saving, and investment
(c) capital goods prices and rentals

11. Decision Making under Uncertainty

BH, Chapter 19

(a) preferences and risk aversion
(b) state preference and portfolio decisions
(c) relative and absolute risk aversion
(d) insurance and risk sharing