

Econ 73-250A-F
Spring 2001
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TOPICS COVERED IN FINAL EXAMINATION

Please notice: The final exam is comprehensive. Sometimes the textbook has more than what I have said in class on a given topic, sometimes it is the other way around. In both cases, I will test you on what we have seen in class. The following is an (almost) exhaustive list of topics covered in class with reference to the relative textbook chapter.

Budget Constraint (Chapter 2)

- Definition of budget constraint and budget line;
- How to graph the budget line;
- How the budget line shifts with changes in prices and income;
- Distinguishing dollar prices from relative prices;
- Distinguishing between different types of taxes and subsidies;
- How the budget line is affected by taxes and subsidies of different kind;
- Budget lines with kinks;
- Food Stamp program.

Preferences (Chapter 3)

- Preference relation;
- Axioms on preference relation (complete, transitive, reflexive);
- Indifference curves;
- Different types of preferences and related indifference curves: perfect substitutes, perfect complements.
- Properties of indifference curves (can they cross?);
- Monotonic preferences;
- Convex, strictly convex preferences and concave preferences;
- Marginal rate of substitution and its properties.

Utility (Chapter 4)

- What is a utility function;
- Under which conditions a utility function represents a preference relation;
- Plotting indifference curves: perfect substitutes, perfect complements, Cobb-Douglas;
- Marginal utility and its properties;
- Marginal rate of substitution, its relation to marginal utilities, and how to compute it given utility.

Choice (Chapter 5)

- Finding optimal choice on a graph;
- When is tangency between (minus) relative prices and MRS necessary and when is it sufficient to find an optimal choice;
- Interpretation of the tangency condition;
- Tangency with many consumers with different incomes and preferences;
- Finding the optimum with a Cobb-Douglas utility function, and properties of the Cobb-Douglas demand functions;
- Demand functions for different preferences (substitutes, complements, Cobb-Douglas);
- Choosing a tax: income or quantity taxes?

Demand (Chapter 6)

- How demand changes with income: income offer curves and Engel curves for different types of preferences;
- Normal and inferior goods;
- Luxury and necessary goods;
- How demand changes with price: price offer curves and demand curves;
- Ordinary and Giffen goods;
- How demand changes with price of other goods: substitute and complement goods;
- Inverse demand function and curve; interpretations of inverse demand curve.

Consumer's surplus (Chapter 14)

- Gross consumer's surplus;
- Consumer's surplus;
- Different ways of computing costs of higher prices for the consumer: change in consumer's surplus, compensating variation, equivalent variation;
- What do we need to know to compute each of these measures (utility function or demand function);
- Computing these measures in practice, given a consumer and a change in prices.

Market Demand (Chapter 15)

- Aggregating individual demand functions to obtain aggregate demand functions;
- Price elasticity of demand;
- Income elasticity of demand;
- The Laffer curve.

Equilibrium (Chapter 16)

- Supply and producer's surplus;
- Competitive markets;
- Determining the equilibrium price and quantity;
- Taxes and their effect on equilibrium prices and quantity;
- Passing along taxes;
- Deadweight loss of a tax;
- Pareto efficiency;
- Price controls: maximum and minimum prices and price targeting using public demand.

Technology (Chapter 18)

- Production function;
- Isoquants;
- Examples of technologies: fixed proportions, perfect substitutes, Cobb-Douglas;
- Input flexibility: marginal products and technical rate of substitution;
- Returns to scale.

Profit Maximization (Chapter 19)

- Objective of the firm;
- Defining economic profits;
- Fixed and variable factors;
- Profit maximization in the short and in the long run;
- Factor demand curves;
- Buying versus renting capital;
- User cost of capital;
- Profits and constant returns to scale technology;
- Meaning of zero profits.

Cost Minimization (Chapter 20)

- Cost function;
- Isocost lines;
- Minimizing costs in the short and in the long run;
- Cost functions and returns to scale.

Cost Curves (Chapter 21)

- Average cost curves;
- Marginal cost curves;
- Long and short run cost curves.

Firm Supply (Chapter 22)

- Demand curve faced by a competitive firm;
- Supply decision of a competitive firm;
- Producer's surplus and profits of a competitive firm;
- Shutdown condition;
- Long-run supply function.

Industry Supply (Chapter 23)

- Industry equilibrium in the short-run;
- Industry equilibrium in the long-run;
- Taxation in the short-run and in the long-run;
- Economic rents.

Monopoly (Chapter 24)

- Differences between monopolies and competitive markets;
- Profit maximization by a monopolist;
- Deadweight loss of a monopoly;
- Why do monopolies occur;
- Natural monopolies.

Monopoly Behavior (Chapter 25)

- First, second, and third degree price discrimination;
- Bundling;
- Two-part tariff.

Externalities (Chapter 32)

- Consumption externalities;
- Production externalities;
- Emissions trading.