Benefit-Cost
Outline of Topics Covered for Midterm No. 2
April 10, 2000

Note: This is the outline for the whole course. Items **not** covered on Midterm No. 2 are crossed out, with items that **are** covered (in the left column only) circled.

I. ~~Principle of Optimization and Its Implications~~
- a. ~~Perfect markets work well~~
- b. ~~Imperfections cause inefficiencies~~
- c. ~~Policies to address the imperfections~~

II. When Markets Fail
- a. Taxes
- b. Externalities
- c. ~~Monopoly (including natural monopoly)~~
- d. ~~Public goods~~
  - i. ~~Principle of optimization for public goods~~
  - ii. ~~Free-rider problem~~

III. ~~Criteria for Evaluating Public Policies~~
- a. ~~Pareto Criterion~~
- b. Kaldor-Hicks Rule
- c. ~~Majority Voting~~
- d. ~~Application to Public Goods~~

IV. Using Markets to Evaluate Benefits and Costs
- a. Basics of markets and consumer/producer surplus
  - i. Information requirements
  - iii. Calculating changes from **elasticities**
  - iv. Solving for market equilibrium
- b. ~~Examples~~
  - i. ~~Natural monopoly (subway problem)~~
  - ii. ~~Public good that lowers costs~~
  - iii. Government procurement

V. Using Distorted Markets
- a. Externalities
- b. Markets that do not clear

VI. Valuation over Time (Discounting)
- a. Rationale for discounting
- b. General formula
- c. Special Cases
  - i. Constant payment, infinite time
  - ii. Constant payment finite time
  - iii. Payments that decay at constant rate
  - iv. Payments that appreciate at constant rate
- d. Inflation

VII. Uncertainty
- a. Expected value
- b. Certainty equivalent
- c. Expected utility

VIII. Valuing Things that Have No Markets
- a. Value of Life
  - i. Discounted Future Earnings
  - ii. Required Compensation
- b. Capital Values
  - i. What they include
  - ii. Hedonic regression
- c. Value of Time

IX. Income Redistribution
- a. Leaky Bucket Ratio
- b. Weighted Benefits and Costs