Course outline:

O. COURSE OVERVIEW AND INTRODUCTION

Lecture: January 17, 2001
- Introduction to cost-benefit analysis, its value, its limits
- Course overview
  Note: Assignment #1 will be handed out, due Feb. 1 in Section

Section: January 18, 2001
- Review: setting up and working with EXCEL spreadsheets
- Review: basic accounting concepts
  Note: section will be held in the SIPA Computer Lab

Readings:
- Boardman, Greenberg, Vining, & Weimer: Chapter 1
- Gramligh: Chapter 1

I. FINANCIAL APPRAISAL

Lecture: January 24, 2001
- Appraisal techniques: an heuristic overview
- Discounting and present-value analysis
- Investment criteria
- Financial appraisal: operational issues

Section: January 25, 2001
- Review: financial appraisal
  Note: section will be held in the SIPA Computer Lab

Readings:
- Boardman, Greenberg, Vining, & Weimer: Chapter 4

II. ECONOMIC APPRAISAL: MARKET-BASED COSTS AND BENEFITS

Lecture: January 31, 2001
- Economic appraisal: overview
- Valuing costs/benefits in undistorted markets
- Valuing costs/benefits in distorted markets
  Note: Assignment #2 will be handed out, due Feb. 15 in Section

Section: February 1, 2001
- Review: algebra of market equilibrium
  Note: Assignment #1 will be collected
  Note: section will be held in Rm. 405.

Lecture: February 7, 2001
- Algebraic derivation of market-based costs/benefits
- Estimating changes in social surplus
- Valuing costs/benefits in secondary markets
Section: February 8, 2001
- Review: calculation of market-based costs and benefits

*Note:* section will be held in the SIPA Computer Lab

Readings:
- Boardman, Greenberg, Vining, & Weimer: Chapter 2
- Gramlich: Chapters 2, 3
- Boardman, Greenberg, Vining, & Weimer: Chapter 3, pp.53-64 and Appendix
- Boardman, Greenberg, Vining, & Weimer: Chapter 3, pp. 64-118
- Gramlich: Chapter 5

### III. RISK, UNCERTAINTY, AND FLEXIBILITY

Lecture: February 14, 2001
- Risk analysis: an overview
- Review of basic statistical concepts
- Quantifying risk: a simple example

*Note:* Assignment #3 will be handed out, due March 1 in Section.

Section: February 15, 2001
- Review of basic microeconomic concepts: expected utility theory

*Note:* Assignment #2 will be collected

Section: February 22, 2001
- Simulation analysis using EXCEL

*Note:* section will be held in SIPA Computer Lab

Readings:
- Boardman, Greenberg, Vining, & Weimer: Chapters 6, 7

### IV. DISTRIBUTIONAL ANALYSIS

Lecture: February 28, 2001
- Distributional analysis: introduction and rationale
- Distributional analysis methodologies: leaky bucket ratios
- Distributional analysis methodologies: social welfare functions

Section: March 1, 2001
- Case study: distributional analysis

*Note:* Assignment #3 will be collected

*Note:* section will be held in Rm. 405.

Readings:
- Gramlich: Chapter 7
- Boardman, Greenberg, Vining, & Weimer: Chapter 14
V. EVALUATION OF HUMAN INVESTMENT PROGRAMS

Lecture: March 7, 2001
- Benefits/costs of human investment programs
- Review of basic statistical concepts: multiple regression analysis
- Empirical estimation of benefits/costs
- Selection bias

Section: March 8, 2001
- Case study: evaluating social programs
  
  Note: section will be held in SIPA Computer Lab

March 12—16: Spring Break, No Lecture or Section

Lecture: March 21, 2001
- Evaluation design
- Other issues
- Social experiments
  
  Note: Assignment #4 will be handed out, due April 12

Section: March 22, 2001
- Case study: evaluating social programs (contd.)
  
  Note: section will be held in SIPA Computer Lab

Readings:
- Boardman, Greenberg, Vining, & Weimer: Chapter 9
- Gramlich: Chapter 9

VI. SOCIAL REGULATION

Lecture: March 28, 2001
- Regulation: introduction and rationale
- Workplace and product safety regulations

Section: March 29, 2001
- Case study: consumer product safety standards
  
  Note: section will be held in Rm. 405.

Lecture: April 4, 2001
- Environmental regulations
- Choice of regulatory instruments
- Costs and benefits of regulations

Section: April 5, 2001
- Case study: acid rain
  
  Note: section will be held in Rm. 405.

Readings:
- Gramlich: Chapter 12
VII. COST-EFFECTIVENESS ANALYSIS

Lecture: April 11, 2001
- Cost-effectiveness analysis

Section: April 12, 2001
- Cost-effectiveness analysis

Note: Assignment #4 will be collected

Note: section will be held in Rm. 405.

Readings:
- Boardman, Greenberg, Vining, & Weimer: Chapters 13

VIII. ESTIMATE OF NON-MARKET BENEFITS AND COSTS

Lecture: April 18, 2001
- Non-existent markets: introduction
- Categories of non-market benefits/costs
- Estimation from observed behavior: hedonic and other regression methods
- Estimation from stated responses: contingent valuation methods

Section: April 19, 2001
- Case study: estimating non-market benefits

Note: section will be held in Rm. 405.

Readings:
- Boardman, Greenberg, Vining, & Weimer: Chapters 10, 11

IX. CONCLUSION: GETTING STARTED

Lecture: April 25, 2001
- Conclusion: getting started
- Using estimates from secondary sources
- The robustness of cost-benefit analyses

Section: April 26, 2001
- Course review

Note: section will be held in Rm. 405.

Readings:
- Gramlich: Chapter 13
- Boardman, Greenberg, Vining, & Weimer: Chapters 12, 15