Course Overview
Market failures are widespread in societies, resulting in the non provision of some goods and services deemed desirable to society. Additionally firms often fail to take into account the negative effects of their actions on the society as a whole. In these situations government intervention is deemed necessary. Cost-Benefit Analysis (CBA) is a tool used by government agencies to determine the effectiveness of public works projects. CBA is the application of economic, financial and quantitative reasoning tools to issues of resource allocation in public policy. It identifies, quantifies and aggregates the positives (benefits) and negative (costs) effects associated with a public policy decision. The course is taught partly in a seminar format and will often cover applications of CBA to crime, (such as a cost/benefit analysis of imprisonment in different states or the measurement of rehabilitation and special deterrence), health care, education, transportation, the environment and other public policies that are of current interest.

Learning Outcomes:

Course-Specific Learning Outcomes:
After completing this course, students will be able to:
1. Provide justification for Cost-Benefit Analysis as an evaluative tool with particular reference to public goods and externalities.
2. Identify the steps involved in a CBA.
3. Quantify the costs and benefits of a project, taking into consideration; issues in discounting, timing of benefits and costs, and current versus constant values.
4. Make decisions on competing projects by computing and evaluating net present value, benefit-cost ratio and the internal rate of return, with consideration for the life of respective projects.
5. Account for uncertainties in CBA.
6. Evaluate and critique CBA by asking questions relevant to particular projects.
7. Present the finding of CBA, providing motivation and justification to a listening audience.
8. Engage in the debate on CBA, providing arguments for and against, providing a summary referencing case studies evaluated in class.

Required Text and Course Documents
No text is required for this course. Assigned readings, articles and case studies will be made available in class or via course webpage.

Prerequisites
ECO 231, ECO 232 or consent of instructor.
Tentative Course Outline

Week 1: Externalities

Week 2: Public Goods

Week 3: Cost-Benefit Analysis: The Fundamentals
   Reading:
   Harvey Rosen, Public Finance (McGraw-Hill/Irwin) (7th ed.), Chapter 11
   Prisons: Critical Steps and Considerations

   Case Studies:  Bridge over the Tempisque River

Week 4: Cost-Benefit Analysis: The Fundamentals Cont'd
   Reading:
   Harvey Rosen, Public Finance (McGraw-Hill/Irwin) (7th ed.), Chapter 11
   Prisons: Critical Steps and Considerations

   Case Studies: Bridge over the Tempisque River

Week 5: Issues in Discounting
   Readings:
   Boardman, Greenberg, Vining, and Weimer (1996), Chapter 6

Week 6: Issues in Discounting Cont'd
   Application of Cost-Benefit Analysis: Transportation
   Readings:
   Benefit-Cost Analysis of the Proposed Monorail Green Line
   Benefit-Cost Analysis for the Rock County Airport (JVL) Runway extension

Week 7: Application of Cost-Benefit Analysis: Transportation
   Readings:
   Benefit-Cost Analysis of the Proposed Monorail Green Line
   Benefit-Cost Analysis for the Rock County Airport (JVL) Runway extension
Week 8: Double-counting and Secondary markets

Readings:
Boardman, Greenberg, Vining, and Weimer (1996), Chapter 5

Application of Cost-benefit Analysis: Crime

Readings:
Morrison Piehl, Anne, Useem Bert, and Dilulio John J.  *Right-Sizing Justice: A Cost-Benefit Analysis of Imprisonment in Three States*  
Tara Gray and Kent Olson.  *A Cost-Benefit Analysis of Sentencing Decision for Burglars*  
Tara Gray, Clark R. Larsen, Peter Haynes, and Kent Olson.  *Using Cost-Benefit Analysis to Evaluate Correctional Sentences*  
Tara Gray.  *Research Note: Using Cost-Benefit Analysis to Measure Rehabilitation and Special Deterrence*

Week 9: Dealing with Uncertainty

Reading:
Boardman, Greenberg, Vining, and Weimer (1996), Chapter 7

Problem Set #4

Week 10: Dealing with Uncertainty Cont'd

Reading:
Boardman, Greenberg, Vining, and Weimer (1996), Chapter 7

Application of Cost-Benefit Analysis: Health

Readings:
Mohan V. Bala, Josephine A. Mauskopf and Lisa L. Wood, *Willingness to Pay as a Measure of Health Benefits*  
Josephine A. Mauskopf, et al.  *Benefit-Cost Analysis of Hepatitis B Vaccine Programs for Occupationally Exposed Workers*  

Week 11: Cost Benefit Analysis and the Environment

Application of Cost-Benefit Analysis: Environment

Readings:
Shadbegian Ronald, Gray, Wayne and Morgan, C.  *Benefits and Costs from Sulfur Dioxide Trading: A Distributional Analysis*
Week 12: Application of Cost-Benefit Analysis: Education

Readings:
W. Steven Barnett, *Benefit-Cost Analysis of Pre-School Education: Findings from a 25-year Follow-Up*
Leonard N. Masse and W. Steven Barnett *A Benefit Cost Analysis of the Abecedarian Early Childhood Intervention*

Week 13: The Cost-Benefit Analysis Debate

i) Critiques
ii) Arguments in favor
iii) Assessing both sides

Readings: