

**American University**  
**PUAD 671: Cost-Benefit Analysis**  
**Spring 2014**

Time: Tuesdays, 5:30 – 8:00pm  
Location: Ward 304

Instructor: Nick Kahn  
Office: Hurst 207

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Office Hours: Wednesdays 3:00 – 5:00pm, Thursdays 10:45 – 11:45am, and by appointment

**Course Description and Objectives:**

This course connects economic theory with policy analysis using the tool usually referred to as “cost-benefit analysis.” The goal of a cost-benefit analysis is to measure a project’s economic efficiency by providing a formal description of the associated costs and benefits. We will be concerned with the evaluation of private, non-profit, and public projects from a societal viewpoint. Cost-benefit analysis has become standard practice in policy analysis. We will consider applications of cost-benefit analysis to a wide range of public policy issues such as economic development, infrastructure, social, and environment projects. This course will provide you with the theoretical background and practical skills required to be able to critically assess a cost-benefit analysis and to perform your own cost-benefit analysis.

**Required Textbooks:**

Boardman, Anthony E., David H. Greenberg, Aidan R. Vining, and David L. Weimer. *Cost-Benefit Analysis: Concepts and Practice*. 4<sup>th</sup> edition. Pearson-Prentice Hall, 2011.

Supplemental readings as assigned that will be posted on Blackboard.

## **Course Objectives:**

This course's objective is to provide you with the necessary skills needed to become effective consumers and producers of cost-benefit analysis. We will use practical applications to reinforce the theory. We will stress what cost-benefit analysis can and cannot accomplish. Understanding the limitations of cost-benefit analysis is equally important as understanding its usefulness. Classes will consist of lectures, class discussions, and in-class problem solving. Lectures will reinforce and clarify reading assignments. To get the most out of this course (and all of your courses) you should attend all classes and complete all reading assignments before class, this will also allow for better class discussions. The best way for all of us to learn is to ask as many questions as possible. I will evaluate your understanding of the course material using problem sets, exams, and a group project.

## **Student Learning Outcomes:**

This course will provide you with the necessary skills to critically analyze cost-benefit analyses conducted by others as well as conduct your own cost-benefit analysis. This course will help you to be able to apply economic theory to real world policy problems. Students will also be able to understand and articulate many of the limitations and weaknesses of microeconomic theory and cost-benefit analysis. Ultimately, you will be able to compare alternative policies using the tools of cost-benefit analysis.

## **Blackboard:**

There is a Blackboard website for this course. Various assignments and readings will be posted on Blackboard, please check it regularly. I will send class and individual emails via Blackboard. Please make sure that your computer is configured to access Blackboard and to receive emails.

## **Assignments:**

Problem Sets (2):	20% of grade
Midterm Exam:	20% of grade
Final Exam:	25% of grade
CBA Group Project:	35% of grade
Project Proposal (counts towards problem sets grade)	
List of Potential Costs and Benefits (counts towards problem sets grade)	
Group Presentation (20%)	
Final Paper (15%)	

*Problem Sets:*

Problem sets will be distributed in class at least one week before they are due. You can discuss problem sets with your classmates, but each student must hand in their own assignment. Completed problem sets should be submitted at the beginning of class on their due dates. Late problem sets will be severely penalized. I will not accept any problem set after one week past its due date.

*Exams:*

The midterm exam and the final exam will be in-class and closed book. The final exam will be cumulative. While the final exam is cumulative it will contain a much greater proportion of the material covered since the midterm exam. You may bring a basic calculator to the exams.

*CBA Group Project:*

You will perform a cost-benefit analysis for a project/policy of your choice. You will work in groups. Assignments associated with the group project will be due throughout the semester. These assignments are: the CBA project proposal, a list of potential costs and benefits, a group presentation, and a final paper. Only one copy of each assignment will need to be turned in for each group. All group members will receive the same grade for each assignment.

**Important Dates:**

January 28: CBA Project Proposal  
February 4: Problem Set 1  
February 25: Problem Set 2  
March 4: Midterm Exam  
March 11: Spring Break  
March 18: CBA Project List of Potential Costs and Benefits  
April 8: Problem Set 3  
April 15: CBA Project Presentations  
April 22: CBA Project Presentation and CBA Project Final Paper  
May 6: Final Exam

**Additional Course Information:**

*Deadlines:*

All assignments handed in late will be penalized.

If you have a significant reason that you believe would justify rescheduling an exam or assignment, you must (1) contact me before the particular exam date or due date and (2) provide written documentation of the problem. Valid reasons for rescheduling a deadline include illnesses or family emergencies.

*Attendance:*

While there is no specific grade given for attendance or class participation, attendance is strongly encouraged. Quality of class participation and attendance may factor into grading in the event that a student is on the border between grades.

*Academic Honesty:*

You may cooperate with other individuals while working on problem sets, but each individual student must write up and turn in a problem set. You may NOT cooperate with other individuals during exams. Plagiarism is prohibited. Please see the University's Academic Integrity Code for more information:

<http://www1.american.edu/academics/integrity/code.htm>

## **Support Services:**

If you experience difficulty in this course for any reason, please don't hesitate to consult with me. In addition to the resources of the department, a wide range of services is available to support you in your efforts to meet the course requirements.

*Academic Support Center (x3360, MGC 243):*

Offers study skills workshops, individual instruction, tutor referrals, and services for students with learning disabilities. Writing support is available in the ASC Writing Lab or in the Writing Center, Gray Hall 206.

*Counseling Center (x3500, MGC 214):*

Offers counseling and consultations regarding personal concerns, self-help information, and connections to off-campus mental health resources.

*Disability Support Center (x3315, MGC 206):*

Offers technical and practical support and assistance with accommodations for students with physical or psychological disabilities.

If you have a disability and might require accommodations in this course, please notify me with a letter from DSS or ASC early in the semester so that we can make arrangements to address your needs.

## Course Schedule:

Please note that this is a tentative schedule and is subject to changes when necessary.

BGVW: Boardman, Greenberg, Vining, and Weimer

+: Reading Available on Blackboard

Date	Topics and Readings	Assignment Due
January 14	-Introduction to Cost-Benefit Analysis -Conceptual Foundations of Cost-Benefit Analysis	
January 21	-Welfare Economics Foundations of Cost-Benefit Analysis *Readings: BGVW chapter 3 +Krutilla, K. (2005). "Using the Kaldor-Hicks Tableau Format for Cost-Benefit Analysis and Policy Evaluation." <i>JPAM</i> , 24(4).	
January 28	-Valuing Benefits and Costs in Primary Markets *Readings: BGVW chapter 4 +Siegfried, J., & A. Zimbalist (2000). "The Economics of Sports Facilities and Their Communities." <i>JEP</i> 14(3).	CBA Project Proposal
February 4	-Valuing Benefits and Costs in Primary Markets (continued) *Readings: BGVW chapter 4 +Schmitz, A. & T. G. Schmitz (2010). "Benefit-Cost Analysis: Distributional Considerations under Producer Quota Buyouts." <i>JBCA</i> 1(1).	Problem Set 1
February 11	-Predicting and Monetizing Impacts in Markets *Readings: BGVW chapter 12, chapter 13 +Cellini, S. (2008). "Causal Inference and Omitted Variable Bias in Financial Aid Research: Assessing Solutions." <i>The Review of Higher Education</i> , 31(3).	
February 18	-Valuing non-Market Goods and Services *Readings: BGVW chapter 14 (up to 353), chapter 15 +Vining, A. & D. Weimer (2010). "An Assessment of Important Issues Concerning the Application of Benefit-Cost Analysis to Social Policy" <i>JBCA</i> , 1(1).	

February 25	-Special Cases of non-Market Goods and Services in CBA *Readings: BGVW chapter 9, chapter 13 +Ashenfelter, O. (2006). "Measuring the Value of a Statistical Life: Problems and Prospects." IZA Discussion Paper No. 1911.	Problem Set 2
March 4	<b>Midterm Exam</b>	
March 11	<b>Spring Break</b>	
March 18	-Financial Calculations: Discounting Future Benefits and Costs *Readings: BGVW chapter 6 +Dietz, S., C. Hepburn, and N. Stern (2007). "Economics, Ethics and Climate Change."	CBA Project List of Potential Costs and Benefits
March 25	-Financial Calculations Continued *Readings: BGVW chapter 6 + <i>The Economist</i> . "How to Value a Grandchild." December 4, 2006.	
April 1	-Dealing with Uncertainty *Readings: BGVW chapter 7 +Manski, C. F. (2010). "Policy Analysis with Incredible Certitude" <i>NBER Working Paper</i> #16207.	
April 8	-Distribution Considerations, Alternative Approaches, and Policy Recommendations. *Readings BGVW chapter 18	Problem Set 3
April 15	-Wrap up and Review -CBA Group Presentations	
April 22	-CBA Group Presentations	CBA Project Final Paper
April 29	<b>Spring Study Day – No Class</b>	
May 6	<b>Final Exam</b>	