

University of Waterloo
Department of Economics
Course Outline
ECON 361, Cost Benefit Analysis & Project Evaluation
Winter 2012

Instructor: Fiona T. Rahman

Office: PAS1049

Phone: 519-888-4567 Ext. 37073

E-mail: fracman@uwaterloo.ca

Lecture hours & Location: Tuesday & Thursday, 10:00-11:20am, AL105

Office Hours: Tuesday & Thursday, 12:00noon – 1:30 pm
 (Other times by appointment only)

Course Description: Cost-benefit analysis provides an analytical framework for conducting economic analysis of public policy. It offers a practical and systematic approach for comparing a proposal's monetized social costs and benefits and thereby assisting governments, regulatory bodies and other agencies in their project evaluation as well as decision making. Applications of CBA is significant in analyses of infrastructure projects, environmental and safety regulations, social and educational programs, healthcare policies, use of natural resources including forests and fisheries and in many other arena.

This course will introduce students to the principles of cost benefit analysis including consideration of welfare economics, the treatment of intangibles, non-efficiency considerations, time discounting, evaluation criteria, uncertainty and risk. At the end of the term, students will not only know how to conduct a CBA, but also understand the limitations and controversies associated with it.

Prerequisite: Econ 201

Required Textbook

Boardman, A. Greenberg, D. Vining, A. Weimer, A. (2010). Cost Benefit Analysis: Concept and Practice (4th Edition). Prentice Hall.

Note: this text is also available electronically at a reduced cost from CourseSmart. For more information, please see <http://www.coursesmart.com/students>

Evaluation	Percent of final grade	Date	Time
Assignment 1 (Individual)	10%	Due Tuesday, February 7	In class
Midterm Test	25%	March 8	10:00-11:20 am
Assignment 2 (Group) (A written review and presentation of a CBA paper)	10%	Written paper due Thursday, March 22 . Presentation will take place between March 22 and April 2	TBA
Final Exam	55%	Scheduled by the registrar	-----

Note:

(1) The penalty for late assignment is 1 mark per day. Students submitting identical assignments will be highly penalized.

(2) Make-up midterm test is not allowed in this course. For students who cannot write a regularly scheduled test due to illness and have valid doctor's note (approved by the instructor), the weight of the test will be shifted to their final exam. Students must report to the instructor the reasons for not writing the midterm exam prior to the exam date or immediately after the exam.

(3) The final exam will be comprehensive. The date for the final exam is determined by the Registrar's Office. The final exam period for Winter Term 2012 is April 9 to April 21. Students are expected to be available during this time. Travel plans are not acceptable grounds for granting an alternative final examination time.

Lecture Topics:

1. Introduction, Types of CBA, The Basic Steps of CBA (Chapter 1)
2. Discounting Benefits and Costs in Future Time periods (Chapter 6)
 - Comparing Projects with Different Time Periods
 - Real versus Nominal Dollars
3. Microeconomic foundations of CBA : Measuring Efficiency & Changes in Welfare (Chapter 2 & 3)
 - a. Pareto improvement, Pareto efficient, Pareto inefficient, potential Pareto frontier, Pareto frontier
 - b. Willingness to Pay (WTP)
 - c. Opportunity Cost (OC)
 - d. Pareto Efficiency – Kaldor-Hicks Criterion
 - e. Relationship Between Demand Curve and the Reservation Price Curve
 - f. Changes in Consumer Surplus, Producer Surplus
 - g. Social Surplus
 - h. Compensating Variation
 - i. Equivalent Variation
4. Valuing benefits and costs in primary markets (Chapter 4)
 - Valuing Outcomes: Willingness to Pay
 - Valuing Inputs: Opportunity Cost
5. Valuing benefits and costs in secondary markets (Chapter 5)
 - Valuing Benefits and Costs in Efficient Secondary Markets
 - Valuing Benefits and Costs in Distorted Secondary Markets
6. Valuation Using Observed Behaviour: Direct Estimation (Chapter 13)
 - Slope /Price Elasticity of demand
7. Valuation Using Observed Behaviour: Indirect Estimation (Chapter 14)
 - Market Analogy Method
 - The Trade-Off Method
 - Intermediate Good Method
 - Asset Valuation Method
 - Hedonic Pricing Method

- Travel Cost Method
- Defensive Expenditure Method
- 8. Shadow Prices From Secondary Markets (Chapter 16)
 - Best Estimate Shadow Prices and Approaches
 - Crime, Nature & Pollution
 - Transferring and Adjusting Shadow Prices for Use
- 9. Risk and Uncertainty (Chapter 7 & 8)
 - Introduction to Risk and Uncertainty
 - Sensitivity Analysis
 - Conceptual Foundations of Risk
 - Expected utility and option price

*A specific timetable indicating topics for specific lecture dates will not be provided. Our progress will depend on class ability and interest in the lecture materials.

Resources: Lecture slides and Problem sets will be posted to <http://learn.uwaterloo.ca> at 1121 -Winter 2012 - ECON 361 Cost benefit Analysis & Projects Evaluation

Special Notes on Academic Integrity, Grievance and Discipline:

Academic Integrity: in order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility.

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4, <http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm>

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, **(including writing examinations in a section that you are not registered in)**, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline, <http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>

Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read Policy 72 - Student Appeals, <http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm>.

Academic Integrity website (Arts):

http://arts.uwaterloo.ca/arts/ugrad/academic_responsibility.html

Academic Integrity Office (UW): <http://uwaterloo.ca/academicintegrity>

Note for students with disabilities: The Office for Persons with Disabilities (OPD), located in NH1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term.

Department Grade Revision Policy A grade in any ECON course may not be changed if 12 or more months have elapsed since the grade was awarded.

Deferred Final Economics Exam Normally, a student who has been ill (documentation required) and missed the scheduled final exam MUST petition the Department of Economics Undergraduate Office within 48 hours to write the Departmental Deferred Examination. If the student has failed to write the Departmental Deferred Examination, the student will automatically receive a grade of 0% for the missed deferred final examination. Please download and fill out the **Special Deferred Exam Request Form** and attach the supporting documentation before submitting to the Instructor for **departmental** approval. Due to illness on the day of the exam (and not that you are unprepared), you are given the deferred privilege. Please be ready to write the deferred exam on short notice.

[Final Deferred Exam Request Form](#)