

ECON 3433 (X2) - Cost-Benefit Analysis

Department of Economics

Acadia University

Winter 2020

Instructor	Dr. Justin Beaudoin
Email	justin.beaudoin@acadiau.ca
Office Location	BAC 346
Office Hours	Tue/Wed, 10:00am - 11:30am (and by appointment)
Course Website	Access via ACORN
Class Location	BAC 236
Class Times	Tue/Thu, 3:00 - 4:30pm

Course Materials

ACORN will be used for class announcements and will contain all course materials: syllabus, class notes/slides, any additional readings, and materials for assignments and exams.

Office Hours

I encourage you to attend office hours if you have questions regarding the course material. Please email me or see me in person to arrange a time to meet. Should any issues or concerns arise throughout the course, you are encouraged to consult with me as soon as possible so that we can work together to find the resources to help you succeed.

Course Description

ECON 3433 provides an introduction to the practice of project evaluation via cost-benefit analysis. Throughout the course, we will learn the fundamental principles and concepts of cost-benefit analysis and undertake an application to a current issue in the region. This course will help you understand how to build a microeconomic model in order to evaluate the effects of a potential project/policy, as well as how to communicate the results to stakeholders. In small groups, we will work on analyzing one project of local interest during the course. We will gain the tools to answer the following questions:

1. What are the categories of costs and benefits due to a proposed project/policy?
2. How do we measure these costs and benefits?
3. How do we compare these costs and benefits over the life of the project/policy to determine whether this project/policy is desirable or not?
4. How do we incorporate uncertainty into this assessment?

Course Prerequisites

The prerequisite for the course is introductory microeconomics (ECON 1013). The required microeconomic concepts will be discussed as necessary as the course proceeds. In terms of mathematical preparation, we will utilize will be graphical representations of various relationships, algebraic calculations and creating a model using a spreadsheet. It is my objective to teach the material in a manner that is not overly technical and it is my hope that mathematics do not become an obstacle in learning the material.

Course Learning Objectives

A solid understanding of the material in this course is beneficial for further studies in economics, and the economic approach to analyzing issues has wide applicability for a variety of careers. By the end of the course, students will have learned the basic analytic skills and techniques that will allow them to use economic models and to apply microeconomic reasoning to analyze real-world issues.

More specifically, upon course completion students are expected to be able to:

- apply cost-benefit analysis concepts in their professional and personal lives,
- apply microeconomic concepts to assess specific real-world problems,
- display improved report writing skills and the ability to communicate economic language to a broader audience,
- benefit from improved speaking and presentation skills,
- exhibit basic data presentation and analysis skills,
- gain tangible experience and skills that will be beneficial in both pursuing further studies and in transitioning to careers after graduation, and
- gain experience working in teams with peers from diverse backgrounds.

Textbook

The textbook for the course is “Cost-Benefit Analysis (4th Edition)” by Boardman, Greenberg, Vining and Weimer (2010). This book is often used for undergraduate courses in Cost-Benefit Analysis, and the class discussions will aim to supplement the material in the text.

Exam

The Final Exam will be a “take home” exam that will be made available on ACORN. The exam will focus on a case study of a cost-benefit analysis, with more details provided later in the course.

Assignments

There will be 4 graded assignments throughout the course, worth 25% of the overall course grade. These assignments will be sub-sections of the final report that will be submitted at the end of the class. The assignments (and presentation) will be completed collaboratively in small groups that will be set up early in the course. The objective will be to incorporate the feedback that you receive on these assignments in the final version of the report that is submitted at the end of the course. Each student will submit their own report. The Final Report will be worth 35% of the overall course grade.

Assignment #1	Due: February 13
Assignment #2	Due: February 27
Assignment #3	Due: March 17
Assignment #4	Due: March 24
Final Report	Due: April 5

Grading

Assignments (4)	20%
Presentation	15%
Final Report	25%
Final Exam	30%
Class Engagement	10%

The grade scale for the course is as follows:

Letter Grade	GPA	% Range	Rating
A+	4.33	95 - 100%	Excellent
A	4.0	90 - 94%	
A-	3.67	85 - 89%	
B+	3.33	81 - 84%	Good
B	3.0	78 - 80%	
B-	2.67	74 - 77%	
C+	2.33	70 - 73%	Average
C	2.0	66 - 69%	
C-	1.67	62 - 65%	
D+	1.33	58 - 61%	Pass
D	1.0	54 - 57%	
D-	0.67	50 - 53%	
F	0.0	0 - 49%	Failure

The class engagement grade is based on your contribution to classroom discussions and my assessment of your effort throughout the class.

Class Material

The following is a broad outline of the material that will be covered in the class:

- Part 1 - Outlining the scope of the project: planning report content
- Part 2 - Formulating the cost-benefit model: qualitative analysis
- Part 3 - Undertaking the analysis: quantitative analysis
- Part 4 - Presenting the results: verbal presentation and written submission

Time permitting, we will cover material from the following chapters in the textbook:

- Ch 1 - Introduction to Cost-Benefit Analysis
- Ch 2 - Conceptual Foundations of Cost-Benefit Analysis
- Ch 3 - Microeconomic Foundations of Cost-Benefit Analysis
- Ch 4 - Valuing Benefits and Costs in Primary Markets
- Ch 5 - Valuing Benefits and Cost in Secondary Markets
- Ch 6 - Discounting Benefits and Costs in Future Time Periods
- Ch 7 - Dealing with Uncertainty: Expected Values, Sensitivity Analysis, and the Value of Information
- Ch 8 - Option Price and Option Value
- Ch 9 - Existence Value
- Ch 10 - The Social Discount Rate
- Ch 11 - Predicting and Monetizing Impacts
- Ch 12 - Valuing Impacts from Observed Behavior: Experiments and Quasi Experiments
- Ch 13 - Valuing Impacts from Observed Behavior: Direct Estimation of Demand Curves
- Ch 14 - Valuing Impacts from Observed Behavior: Indirect Market Methods
- Ch 15 - Contingent Valuation: Using Surveys to Elicit Information about Costs and Benefits
- Ch 16 - Shadow Prices from Secondary Sources

Class notes will be posted on Canvas prior to each class. Please note that the posted class notes may be incomplete relative to the notes presented in class. In the event that you must miss a class, it is recommended that you consult with me or a classmate to obtain any missed notes.

Class Schedule

The following is a preliminary schedule for the course that may be updated as the course proceeds. The posted class notes will contain any information about any potential changes to the schedule in advance.

Class #	Date	Notes
..... <i>Week 1</i>		
1	Tue, Jan 7	Discussion of Syllabus; Course Overview
2	Thu, Jan 9	
..... <i>Week 2</i>		
3	Tue, Jan 14	Chapter 2
4	Thu, Jan 16	Chapter 3
..... <i>Week 3</i>		
5	Tue, Jan 21	Chapter 3
6	Thu, Jan 23	Chapter 4
..... <i>Week 4</i>		
7	Tue, Jan 28	Chapter 4
8	Thu, Jan 30	Chapter 5
..... <i>Week 5</i>		
9	Tue, Feb 4	Chapter 5
10	Thu, Feb 6	Chapter 6
..... <i>Week 6</i>		
11	Tue, Feb 11	Chapter 7
12	Thu, Feb 13	Chapter 7
..... <i>Week 7</i>		
-	Tue, Feb 18	No class
-	Thu, Feb 20	No class
..... <i>Week 8</i>		
13	Tue, Feb 25	Chapter 8
14	Thu, Feb 27	Chapter 9
..... <i>Week 9</i>		
15	Tue, Mar 3	Chapter 10
16	Thu, Mar 5	Chapter 11

Class #	Date	Notes
..... <i>Week 10</i>		
17	Tue, Mar 10	Chapter 12
18	Thu, Mar 12	Chapter 13
..... <i>Week 11</i>		
19	Tue, Mar 17	Chapters 14/15
20	Thu, Mar 19	Chapters 16
..... <i>Week 12</i>		
21	Tue, Mar 24	Part 4
22	Thu, Mar 26	Part 4
..... <i>Week 13</i>		
23	Tue, Mar 31	Student presentations
24	Thu, Apr 2	Course summary
..... <i>Final Exam Due: April 18</i>		

Course Policies

Course dates/policies are outlined at the beginning of the course and are the student's responsibility; please communicate any issues, concerns or scheduling conflicts *well before* the relevant deadline so that we can address the issue appropriately. Any requests for re-grading must include a written explanation as to why re-grading is appropriate, and the entire quiz/test/exam will be re-graded (so that the overall grade may increase, decrease, or remain the same). This request must be submitted within one week of the date that the quiz/test/exam was returned in class.

Please communicate with me if an illness or other issue will cause you to miss multiple classes. I expect students to exercise proper classroom etiquette in respect of their classmates and the instructor; while laptops/tablets may be used for note-taking, I ask that you minimize cell phone use in class, as it detracts from the classroom experience (and has been shown to significantly lower students' grades...).

Accessibility

If you are a student with documentation for accommodations or if you anticipate needing supports or accommodations, please contact Marissa McIsaac, Accessibility Resource Facilitator at 902-585-1520, disability.access@acadiau.ca or Emily Duffett, Accessibility Officer, disability.access@acadiau.ca. Accessible Learning Services is located in Rhodes Hall, rooms 111-115.

Academic Ethics

It is the responsibility of students to familiarize themselves with the University's policy on academic ethics. Copying, plagiarism and other academic offenses will not be tolerated. Penalties are severe and may result in suspension from a program/course and expulsion. A complete list of Academic Regulations can be found on the Policies page of the University's website. I strongly recommend that all class members review the sections in the 2019-20 academic calendar dealing with Academic Policy and Regulations. It is a serious offense to engage in academic misconduct.

Last updated: January 2, 2020