

ECON 3433 (X2) - Cost-Benefit Analysis

Department of Economics

Acadia University

Winter 2021

Instructor	Dr. Justin Beaudoin
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Office Location	Virtual (Microsoft Teams)
Office Hours	By appointment
Course Website	ACORN
Class Location	In person: BAC 236; Live stream: Microsoft Teams
Class Times	Tue/Thu, 4:30 - 5:50pm

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. 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. 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 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, and
- gain tangible experience and skills that will be beneficial in both pursuing further studies and in transitioning to careers after graduation.

Prerequisite

In general, completion of ECON 1013 with a grade of C- or better (or approval of the instructor). While students without a background in supply and demand analysis may find parts of the course more challenging, the required microeconomic concepts will be discussed as necessary as the course proceeds. In terms of mathematical preparation, we will utilize 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.

Class Format

This is a “hybrid scheduled” class. There are three ways to access the course meetings:

1. Face-to-face (in person) at BAC 236 on Tue/Thu from 4:30 - 5:50pm.
2. Live stream via Microsoft Teams on Tue/Thu from 4:30 - 5:50pm (to access the class you will need to ‘Join’ the scheduled meeting during this time).
3. Watch the recorded video asynchronously (a link will be posted on ACORN shortly after the class concludes).

It is highly recommended that you use Option 1 or 2 whenever possible. I cannot guarantee the quality/reliability of the recordings, and participating synchronously allows you to better ask questions and to keep pace with the course.

Please note that some classes may be fully online, due to issues such as weather, health, etc. If this is the case, this will be announced in advance of class. Please contact me if there is ever any confusion about the day’s plans. Note: if there is consistently low in-person attendance, the class may switch to completely virtual delivery.

Course Materials and Websites

ACORN (<https://acorn.acadiau.ca/course/view.php?id=22342>) is the primary source for class announcements and will contain all course materials: syllabus, class notes/slides, video recordings, and materials for assignments and tests.

Teams is used for live streaming class meetings and for office hours; course material will *not* be stored on Teams.

If there is any confusion about where to locate specific material, feel free to contact me for clarification.

Technology Issues & Support

If there are any issues with my internet connection, please wait approximately 10 minutes for me to troubleshoot the problem. In the case that the problem persists, I will provide an update to address any necessary adjustments to the schedule (such as providing an additional prerecorded video).

If you are having technological issues, please contact the Service Desk for support. The Consultants will help you work through any issues that you're having. There are several contact methods:

Live Chat: ts-chat.acadiau.ca

HUB Service Portal: hub.acadiau.ca or ts.acadiau.ca

Phone: 902-585-4357 or 1-888-609-3330

Email: helpdesk@acadiau.ca

If the problem causes you to miss a class meeting, please refer to the recorded video link posted on ACORN, and contact me with any questions that you have.

How to Ask Questions?

I encourage you to ask questions throughout the course. I can promise you that if you have a question, several of your classmates have that same question. There are many ways to ask questions relating to material discussed in class or covered in the prerecorded videos:

- In person during class
- Via Teams during class, using the chat window or by “raising your hand”
- During office hours
- Via email

Office Hours

All office hours will be via Teams this semester (until further notice). This semester, all of my office hours will be by appointment; we will use the “Meet Now” link on Teams. Please send me an email to arrange an appointment.

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.

Textbook

The textbook for the course, which is highly recommended, is:

“Cost-Benefit Analysis: Concepts and Practice, 5th Edition”, by Boardman, Greenberg, Vining and Weimer (2018). ISBN: 978-1-108-40129-6. 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.

Links to purchase the book from the campus bookstore or directly from the publisher are available on ACORN. Our course will follow the organization of the 5th edition of the textbook fairly closely according to the schedule outlined below, though previous editions of the textbook may be similar and could be used for the course.

Assignments & Final Report

We will have four assignments throughout the course. These assignments will be sub-sections of the final report that will be submitted at the end of the class. The assignments may be completed individually or collaboratively in small groups. 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.

Assignment #1	Due: Feb 18
Assignment #2	Due: Mar 11
Assignment #3	Due: Mar 25
Assignment #4	Due: Apr 1
Final Report	Due: Apr 13

Specific instructions will be provided as the course proceeds.

Midterm Test

There will be one midterm test in the course. The test will be conducted online through ACORN on Tue, Mar 2. More details regarding the format and focus of the test will be provided closer to the test date.

No make-up test will be provided; the weight of a missed test will be reassigned to the weight of the final exam in determining your overall grade for the course.

Final Exam

The Final Exam will be conducted online through ACORN and will be a “take home” exam assigned over the Final Exam period. The exam will cover the entire course and will focus on a case study of a cost-benefit analysis, with more details provided later in the course.

Grading

Assignments (4)	25%
Final Report	25%
Midterm Exam	20%
Final Exam	30%

The grade scale for the course is below:

Letter Grade	GPA	% Range	Rating
A+	4.33	90 - 100%	Excellent
A	4.0	85 - 89%	
A-	3.67	80 - 84%	
B+	3.33	77 - 79%	Good
B	3.0	73 - 76%	
B-	2.67	70 - 72%	
C+	2.33	67 - 69%	Average
C	2.0	63 - 66%	
C-	1.67	60 - 62%	
D+	1.33	57 - 59%	Pass
D	1.0	53 - 56%	
D-	0.67	50 - 52%	
F	0.0	0 - 49%	Failure

Class Material

The following list outlines the material that we will cover in the course, with the class discussions highlighting the most important concepts within each chapter. The extent to which we cover various topics will be affected in part by student interest, amount of discussion, and difficulty of material.

- Chapter 1: Introduction to Cost-Benefit Analysis
- Chapter 2: Conceptual Foundations of Cost-Benefit Analysis
- Chapter 3: Microeconomic Foundations of Cost-Benefit Analysis
- Chapter 4: Valuing Impacts from Observed Behavior: Direct Estimation of Demand Schedules
- Chapter 5: Valuing Impacts in Output Markets
- Chapter 6: Valuing Impacts in Input Markets
- Chapter 7: Valuing Impacts in Secondary Markets
- Chapter 8: Predicting and Monetizing Impacts
- Chapter 9: Discounting Future Impacts and Handling Inflation
- Chapter 10: The Social Discount Rate

- Chapter 11: Dealing with Uncertainty: Expected Values, Sensitivity Analysis, and the Value of Information
- Chapter 12: Risk, Option Price and Option Value
- Chapter 17: Shadow Prices from Secondary Sources
- Presenting and discussing results

The class notes and links to recorded videos will also be posted on ACORN.

Class Schedule

The following is a preliminary schedule for the course topics that may be updated as the course proceeds. Readings refer to the textbook and are listed as suggestions to keep you up-to-date with the course; the materials in that day’s class may not perfectly coincide with the listed reading. 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 19	Discussion of Syllabus; Course Overview
2	Thu, Jan 21	Chapter 1
..... <i>Week 2</i>		
3	Tue, Jan 26	Chapter 2
4	Thu, Jan 28	Chapter 3
..... <i>Week 3</i>		
5	Tue, Feb 2	Chapter 3
6	Thu, Feb 4	Chapter 4
..... <i>Week 4</i>		
7	Tue, Feb 9	Chapter 4
8	Thu, Feb 11	Chapter 5
..... <i>Week 5</i>		
-	Tue, Feb 16	No class
9	Thu, Feb 18	Chapter 5; Assignment #1 due
..... <i>Week 6</i>		
10	Tue, Feb 23	Chapter 6
11	Thu, Feb 25	Chapter 6

Class #	Date	Notes
..... <i>Week 7</i>		
12	Tue, Mar 2	Midterm Test
13	Thu, Mar 4	Chapter 7
..... <i>Week 8</i>		
14	Tue, Mar 9	Chapter 7
15	Thu, Mar 11	Chapter 8; Assignment #2 due
..... <i>Week 9</i>		
16	Tue, Mar 16	Chapter 9
17	Thu, Mar 18	Chapter 10
..... <i>Week 10</i>		
18	Tue, Mar 23	Chapter 11
19	Thu, Mar 25	Chapter 11; Assignment #3 due
..... <i>Week 11</i>		
20	Tue, Mar 30	Chapter 12
21	Thu, Apr 1	Chapter 17 ; Assignment #4 due
..... <i>Week 12</i>		
22	Tue, Apr 6	Presenting and Discussing Results
23	Thu, Apr 8	Presenting and Discussing Results
..... <i>Week 13</i>		
24	Tue, Apr 13	Course Wrap Up and Review; Final Report due
..... <i>Final Exam Due: TBA</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 ask that students exercise proper classroom etiquette in respect of their classmates

and the instructor (both in person and virtually).

University Policies

Please refer to the following link for the latest University updates and any policy information regarding Covid-19:

<https://www2.acadiau.ca/covid-19.html>

Please review and adhere to the University's Mask Policy:

<https://www2.acadiau.ca/covid-19/mask-policy.html>

Please review and adhere to the Student Code of Conduct:

<https://www2.acadiau.ca/files/files/COVID-19/StudentCodeofConductBriefing.pdf>

You should also review the Student Services Plan:

<https://www2.acadiau.ca/files/files/COVID-19/StudentServicesPlanningModel.pdf>

Accessibility

If you are a student with documentation for accommodations who anticipates needing supports or accommodations, please contact Marissa McIsaac, Accessibility Resource Facilitator at 902-585-1520, disability.access@acadiau.ca or Emily Duffett, Accessibility Officer, 902-585-1823, disability.access@acadiau.ca.

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 2020-21 academic calendar dealing with Academic Policy and Regulations. It is a serious offense to engage in academic misconduct.

Last updated: January 19, 2021