

Department of Economics Faculty of Arts

Economics 453 (L01) (Cost – Benefit Analysis)

Instructor: Heidi Esau Phone: (403)220-7893 Email: Heidi.Esau@ucalgary.ca Lecture Location: PF 110 Lecture Days/Time: TR 12:30 – 13:45

Office: SS 350 Office Hours: M: 15:00-16:00, T: 14:00-15:00 F: 12:30-1:30 via Zoom or by appointment

Fall 2023

Course Description:

This course looks at project evaluation from both a private (financial) and economic (public) perspective. In this course, we investigate the similarities and differences in evaluating private and public projects. For private projects, net present value and internal rates of return are derived from revenues, direct costs, depreciation, and taxes. For public projects, we investigate the welfare gains (or losses) when a public project is proposed.

Course Learning Outcomes:

This course focuses on two aspects of cost benefit analysis. The first part constructs a framework for a financial cost benefit analysis. For this part, the course focuses on how a firm uses financial tools to select projects based on mutually exclusive and independent alternatives. The students learn the importance of capital cost allowance, investment tax credits and marginal tax rates when determining the net present value of a mutually exclusive project.

The second (and most comprehensive part of the course) examines the theoretical basis for economic (social) cost benefit analysis when the benefit is non-monetary or when there is no market price to determine benefits. In this case, the students use the "Willingness to Pay" approach to estimate benefits and learn the importance of contingent valuation surveys. This part of the course examines the benefit/costs from a social welfare perspective and evaluates different proposals by using a social discount rate. The students also learn other methodologies, such as physical-linkage approach and behavior-linkage approaches in estimating benefits.

Course Outline:

Topics will include (time permitting):

- 1. Introduction to Cost Benefit Analysis
- 2. The Evaluation of Financial Costs and Benefits
- 3. Financial Analysis Tools
- 4. Cash Flow Analysis
- 5. Project Analysis and Evaluation Methods
- 6. The Rational for Economic Cost Benefit Analysis
- 7. Economic Valuation in the Public Sector
- 8. Shadow Pricing
- 9. Environmental Cost Benefit Analysis

Prerequisites/Corequisites:

Econ 357 and Econ 359

Required Textbook(s):

There are no textbooks for this course. I will be providing the notes and any supplementary notes. Current topics and relevant research papers will be distributed throughout the term on D2L.

Recommended Textbook(s):

Shaffer, Martin, Multiple Account Benefit-Cost Analysis: A Practical Guide for the Systematic Evaluation of Project and Policy Alternatives, University of Toronto Press, Toronto, 2010.

Required Access to Technology:

Students will be required to use Excel for assignments.

Desire2Learn:

This course will make use of the Desire2Learn (D2L) platform. Students who are registered in the course can log on at <u>http://d2l.ucalgary.ca</u> through their student centre. Please note that D2L features a class e-mail list that may be used to distribute course-related information. These e-mails go to your University of Calgary e-mail addresses only.

Grade Determination:

	100%
Final Exam	40%
Midterm Exam	30%
Assignments (2 x 15%)	30%

Examination Details:

Tests and exams WILL NOT involve multiple choice questions.

Cellphones, textbooks, course notes, and other electronic devices will not be allowed during the writing of tests or final examinations. Students are reminded that simply being able to access their cellphone during an exam is academic misconduct.

The date for the in-class midterm exam will be Oct. 26th, 2023. The midterm exam will be held in class.

Grading Policies:

The official grading system will be used. See <u>http://www.ucalgary.ca/pubs/calendar/current/f-1-1.html</u>.

Students must receive a passing grade on the final exam to pass the course. Students committing academic misconduct during the final exam will not receive a passing grade for the course.

If a student's letter grade on the final exam exceeds their midterm letter grade, the weight of the midterm is transferred to the final exam. The student must have written the midterm(s) or provided supporting documentation for the absence.

As per the Writing Across the Curriculum Statement in the Calendar, writing and grading thereof will be a factor in the evaluation of student work. <u>See https://www.ucalgary.ca/pubs/calendar/current/e-2.html</u>.

THERE WILL BE NO MAKEUP OR DEFERRED QUIZZES/TESTS/EXAMS under any circumstances, nor may the quizzes/tests/exams be written early. Students unable to write the quizzes/tests/exams because of documented illness, family emergency, religious observance, or university-sanctioned event will have the weight shifted to the final examination; otherwise a grade of zero will be assigned.

The final examination will be comprehensive, scheduled by the Registrar, held in a classroom, and last 2 hours. If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam https://www.ucalgary.ca/pubs/calendar/current/g-3-4.html. Under no circumstance will this be accommodated by the Department.

Any student work which remains undistributed after the last day of classes will be available to students through the instructor's office during the instructor's office hours.

Reappraisal of Grades:

For Reappraisal of Graded Term Work, see Calendar I.2 http://www.ucalgary.ca/pubs/calendar/current/i-2.html

For Reappraisal of Final Grade, see Calendar I.3 http://www.ucalgary.ca/pubs/calendar/current/i-3.html

Academic Misconduct and Intellectual Honesty:

Academic Misconduct refers to student behavior that compromises proper assessment of students' academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

Statement of Intellectual Honesty, see Calendar K.3 https://www.ucalgary.ca/pubs/calendar/current/k-3.html

Plagiarism and Other Academic Misconduct https://ucalgary.ca/student-services/student-success/learning/academic-integrity

Academic Accommodations:

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services. SAS will process the request and issue letters of accommodation to instructors. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their instructor. The full policy on Student Accommodations is available at

https://www.ucalgary.ca/legalservices/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf and https://www.ucalgary.ca/legalservices/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf and https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Accommodation-Policy.pdf.

Freedom of Information and Protection of Privacy (FOIP) Act:

Personal information is collected in accordance with FOIP. Assignments can only be returned to the student and will be accessible only to authorized faculty and staff. For more information, see https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/faq-privacy-faculty-members.pdf and https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/faq-privacy-faculty-members.pdf and https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/faq-privacy-faculty-members.pdf

Internet and Electronic Communication Device Information:

The use of cell phones for any purpose in class is prohibited. Computers and tablets may be used for note taking only unless otherwise authorizes by the instructor.

Copyright Legislation:

See the University of Calgary policy on Acceptable Use of Material Protected by Copyright at <u>https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Acceptable-Use-of-Material-Protected-by-Copyright-Policy.pdf</u>. Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

Recording of Lectures:

Recording of lectures is prohibited, except for audio recordings authorized as an accommodation by SAS or an audio recording for individual private study and only with the written permission of the instructor. Any unauthorized electronic or mechanical recording of lectures, their transcription, copying, or distribution, constitutes academic misconduct. See <u>https://www.ucalgary.ca/pubs/calendar/current/e-6.html</u>.

Instructor Intellectual Property:

Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

Important Dates:

Please check: <u>http://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html.</u>

Student Organizations:

Faculty of Arts Students' Association (F.A.S.A.): Economics Department Representative Office: SS 803, E-mail: <u>econrep@fasaucalgary.ca</u> and Web: <u>www.fasaucalgary.ca</u>. Society of Undergraduates in Economics: <u>https://www.ucalgarysue.com/</u>.

Society of Undergraduates in Economics is a student run organization whose main purpose is to assist undergraduate economics students to succeed both academically and socially at the University of Calgary. Services include access to the exam bank, career events such as Industry Night and information sessions, mentorship programs, and social events for members. They invite you to join by contacting SUE at <u>sue@ucalgarysue.com</u>

Faculty of Arts Program Advising and Student Information Resources:

- Have a question, but not sure where to start? The Arts Students' Centre is your information
 resource for everything in Arts! Drop in at SS102, call them at 403-220-3580, or email them at
 artsads@ucalgary.ca. You can also visit the Faculty of Arts website at
 http://arts.ucalgary.ca/undergraduate, which has detailed information on common academic
 concerns, including program planning and advice.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at 403-210-ROCK [7625] or visit them in the MacKimmie Tower.

Student Support and Resources:

- See https://www.ucalgary.ca/registrar/registration/course-outlines for information on campus mental health resources, the Student Ombuds Office, Student Success Centre, Safewalk, and Emergency Evacuation and Assembly.
- Online writing resources are available at <a href="https://ucalgary.ca/student-services/s

Notes:

- 1. Students are responsible for all assigned material, e.g., supplementary material posted on D2L, regardless of whether or not the material was covered in class.
- 2. Please note that the following types of emails will receive no response: Emails which do not list the relevant course; emails which are not signed with student's full name and UCID; and emails involving questions that are specifically addressed on the course outline, lecture slides, or posted on D2L.
- 3. I teach hundreds of students every semester. I simply cannot answer questions regarding how to solve course material via email. If you have questions about how to solve a particular problem or are having difficulty with a topic, please post your question to the D2L discussion forum, ask during a class lecture, or come see me or your TA during our office hours.

HE 2023-08-11