



ECON 316 A01

Principles and Applications of Cost Benefit Analysis

Summer Session: 2024 05, CRN 30376, 1.5 Units, classes on Mondays and Thursdays, 3:30 PM to 4:50 PM, May 8 to August 2, Zoom links provided on an individual lecture basis via Brightspace. UVic Land Acknowledgement

We acknowledge and respect the Lək'wəjən (Songhees and Esquimalt) Peoples on whose territory the university stands, and the Lək'wəjən and WSÁNEĆ Peoples whose historical relationships with the land continue to this day.

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Office Hours: Tuesdays noon to 2 PM, Zoom

Stable Zoom link: <https://uvic.zoom.us/j/89752616457?pwd=UkQ2WjlpWERaYkZBY09NNzlpGMyQT09>

Course Content

Principles of cost benefit analysis including consideration of welfare economics, the treatment of intangibles, nonefficiency considerations, time discounting, evaluation criteria, uncertainty and risk, selected applications in such areas as human resource economics, natural resource and recreation economics, economic development and urban planning.

Course prerequisites/corequisites

Completion of ECON 203, and completion or current enrolment in 1 of ECON 225 or ENGR240. **Credit will be granted for only one of ECON 316, ECON 416.**

Textbook and Software

ECON 316 makes use of a wide variety of online materials in lieu of a single textbook. All required materials are free to UVic students, and will be linked to on Brightspace. Students are also expected to use the desktop version of Microsoft 365, in particular Word and Excel. Microsoft 365 is available for free to UVic students: <https://www.uvic.ca/systems/services/computerssoftware/microsoft365/index.php>

Brightspace

Brightspace is used extensively for the course. All students are expected to be fully functional with the system. The lecture notes will be posted in *Brightspace*. Please note that the lecture notes online are only outlines of the actual lectures.

All announcements will be posted in *Brightspace*. Students are advised to check it frequently.

Grading

Grading Scheme

The course grade is determined as follows:

3 homework projects, each carrying a weight of 20%.

2 in-person midterm exams, with the best mark out of the two carrying a weight of 10%

1 in-person final exam worth 30%

Mandatory/Essential Course Components

To complete the course, student must receive a non-zero grade for at least 2 projects, attend and submit at least one of the two in-person midterm exams, and attend and submit the (in-person) final exam. If you do not meet these requirements, you will receive an “N” grade, no matter what your percentage in the course is. An “N” is a failing grade, and counts as a ‘0’ in GPA calculations.

Dates of Assessments, Due Dates of Projects

Projects:

All three projects are to be submitted via Brightspace. Projects will be marked exactly as submitted. If you submit a draft or another course’s assignment by mistake, that’s what will be marked. No exceptions. However, you are allowed to resubmit your project as often as you wish before the due date; only the most recent submission before the deadline will be marked.

Please note that the project due dates listed below are preliminary, and may change in response to class needs and student feedback. Such changes will always be announced via a Brightspace announcement.

Project 1: Due June 3, by 11:59 PM, Victoria B.C. time.

Project 2: Due June 27, by 11:59 PM, Victoria B.C. time.

Project 3: Due August 1, by 11:59 PM, Victoria B.C. time.

Midterms:

Both midterms take place during the scheduled class time. Expected coverage is preliminary and subject to change. A detailed announcement regarding midterm coverage will be sent via Brightspace once each midterm has been sent to printing.

Midterm 1: June 13, 3:30 PM to 4:50 PM, David Turpin Building A110
Expected Coverage: Lectures 1 – 7 (May 9 to June 3, inclusive).

Midterm 2: July 11, 3:30 PM to 4:50 PM, David Turpin Building A110
Expected Coverage: Lectures 8 – 13 (June 6 to June 27, inclusive).

Final exam:

The final exam will be in person and take place during the August exam period. It is cumulative, and all material in the course is fair game for testing. A detailed announcement regarding final exam coverage will be sent via Brightspace once the final exam has been sent to printing.

Grading Scale

A+	90-100%
A	85-89%
A-	80-84%
B+	77-79%
B	73-76%
B-	70-72%
C+	65-69%
C	60-64%
D	50-59%
F or N	0-49%

Students should review the University's more detailed [summary of grading](#).

Missing Assessments

Late projects will receive a mark of zero, period, no exceptions. In the absence of a pre-approved extension, due dates for projects will NOT be extended, even by one minute. Extensions must be arranged *before* the project is due, except in the case of your 'mental health voucher' (see below). If you ask for an extension five seconds after the assignment or project is due, your request will be declined.

Though projects get a mark of zero if submitted after the due date, it *is* possible to get an extension that changes the due date for you. There are three main types:

- **Mental health voucher.** Every student automatically starts the course with a 'mental health voucher' good for a 3-day (72-hour) extension. **This is the *only* extension that can be granted after the original due date**, and you only have one, so make sure you use it when doing so is most valuable to you. If you find yourself having to submit an assignment or project late, if it's three days late or less, submit your project, and write in the comment 'I'm using my mental health

voucher' on Brightspace. You should also send me an e-mail at willmore@uvic.ca so that I can alert the TA to your submission. This is a one-use voucher, so if you use it when submitting a project that's one minute late, the entire voucher will be gone. Keep that in mind. **This voucher CANNOT be used for the in-person tests or for the final exam.**

- **Extension due to excessive coursework.** It's not my intention to overburden you with work at the same time all your other courses are doing the same. If you have, say, three midterms and two projects due the same week as an ECON 316 assignment, send me an e-mail **ahead of time** requesting an extension. I'll work with you to find an extension that is appropriate for your case and fair to other students. Along with your e-mail, please send evidence of the due dates of the other projects, midterms, etc. (even Brightspace screenshots or forwarded announcements are enough).
- **Extension due to illness or other personal issues.** If you have a personal issue that you believe is grounds for an extension (mental or physical health, varsity trip, etc.) then send me an e-mail requesting an extension before the deadline for the relevant assignment or project. I will do my best to find an extension that is appropriate for you and fair to other students, but depending on the exact circumstances I may not be able to do so. You do not need to share any private information when sending me an e-mail. If I need additional information, I will let you know, and I will do my best to keep it to the minimum details necessary to justify an extension.

Should students encounter a situation where they miss both midterms or the final exam, they may qualify for an academic concession. Missing a midterm results in a mark of zero for the midterm. There is no problem with missing one midterm, as only the highest grade out of both midterms is used. However, there are no deferred/late midterms in this course, and a student who does not attend and submit either midterm is expected to receive an N (incomplete and failed) grade. If a student misses both midterms for a reason for which the university requires accommodation (e.g. illness), it may be possible to put the weight of the midterms on the final exam. To apply for this, a student is required to indicate the specific grounds on which they are requesting an academic concession and to provide a justification outlining the impact of the circumstances on their ability to complete course requirements via a Request for In-course Extension form. To do this, please [fill in the form and follow the instructions on the form](#). I will not respond to informal requests of academic concessions. In case you miss the final exam, fill in a [request for a deferral](#).

Students are advised not to make work or travel plans until after the examination timetable has been finalized. Students who wish to finalize their travel plans at an earlier date should book flights that depart after the end of the examination period. Students do not qualify for an academic concession if travel plans conflict with the examination.

Course Policies

This course adheres to the [Undergraduate Course Policies](#) of the Department of Economics that deal with the following issues:

- Academic concessions
- Academic integrity (plagiarism and cheating)
- Attendance
- Grading
- Inclusivity and diversity
- Late adds
- Late assignments
- Repeating courses
- Review of an assigned grade
- Sexualized violence prevention and response
- Students with a disability
- Term assignments and debarment from examinations
- Travel plans
- Waitlists

The following policies are explicitly included because of their importance.

Waitlist Policies

- Instructors have no discretion to admit waitlisted students or raise the cap on the course.
- Students on the waitlist should discuss with the instructor how to ensure they are not behind with coursework in the event they are admitted.
- Registered students who do not participate as specified in this outline during the first 7 calendar days from the start of the course may be dropped from the course.
- Registered students who decide not to take the course are responsible for dropping the course and are urged to do so promptly out of courtesy toward waitlisted students.
- Waitlist offers cease after the last date for adding courses irrespective of published waitlists.

Academic Integrity

Academic integrity requires commitment to the values of honesty, trust, fairness, respect, and responsibility. Students are expected to observe the same standards of scholarly integrity as their academic and professional counterparts. A student who is found to have engaged in unethical academic behaviour, including the practices described in the [Policy on Academic Integrity](#) in the University Calendar, is subject to penalty by the University.

Review [What is Plagiarism](#) for the definition of plagiarism. Note: Submitted work may be checked using plagiarism detection software.

Student Code of Conduct

The Humanities, Science, and Social Sciences Faculties have adopted this [Student code of conduct](#). Please, review.

University Policies

- University Calendar - Section "[Information for all students](#)"
- [Creating a respectful, inclusive and productive learning environment](#)
- [Accommodation of Religious Observance](#)
- [Student Conduct](#)
- [Non-academic Student Misconduct](#)
- [Accessibility](#)
- [Diversity / EDI](#)
- [Equity statement](#)
- Discrimination and Harassment [Policy](#)
- [Policy on Human Rights, Equity and Fairness](#) - The University is committed to promoting, providing and protecting a positive, supportive and safe learning and working environment for all its members.

Sexualized Violence Prevention & Response

UVic takes sexualized violence seriously, and has raised the bar for what is considered acceptable behaviour. Students are encouraged to learn more about how the university defines sexualized violence and its overall approach by visiting www.uvic.ca/svp. If you or someone you know has been impacted by sexualized violence and needs information, advice, and/or support please contact the sexualized violence resource office in Equity and Human Rights (EQHR). Contact svpcoordinator@uvic.ca.

Resources for Students

[UVic Learn Anywhere](#) - UVic Learn Anywhere is the primary learning resource for students that offers many learning workshops and resources to help students with academics and learning strategies.

[Centre for Accessible Learning](#) - Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, you are free to approach me; however, you must register with the [Centre for Accessible Learning](#) (CAL) for formal arrangements to be made. The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

[Centre for Academic Communication](#) - Offers coaching on [academic integrity](#), including preventing accidental plagiarism. Provides support to students with time management, reading, writing, speaking, understanding academic expectations, and other aspects of academic communication as well as creating academic posters, blogposts, PowerPoint slides, and e-portfolios.

[Health Services](#) - University Health Services (UHS) provides a full service primary health clinic for students, and coordinates healthy student and campus initiatives.

[Support Connect](#) - a 24/7 mental health support service for students

- Toll-free (calls from North America): 1-844-773-1427
- International collect calls: 1-250-999-7621

[Counselling Services](#) - Counselling Services can help you make the most of your university experience. They offer free professional, confidential, inclusive support to currently registered UVic students.

[Indigenous Student Services](#) - Indigenous UVic students have access to many sources of support on campus. Before, during and after your time at UVic, you are encouraged to explore programs and services available to you, such as [Indigenous counselling services](#) and the [Elders in Residence](#), as well as non-academic programs that may be of interest to you.

[International Student Support](#) - The University of Victoria offers a number of resources to support international students as they pursue their studies. UVic's [International Centre for Students](#) is the primary office supporting international students on campus at the university-wide level and provides various supportive program through the [UVic Global Community Initiative](#), including a Mentorship Program and Conversation Partner Program.

For academic advising-related questions, students in the Economics Department are also encouraged to meet with the Economics Undergraduate Advisor (Brooklynn Comish-Trimble, ecadvice@uvic.ca) as well as an academic advisor in the [Academic Advising Centre](#) early in their studies to help map out a plan to declare a major and complete university program requirements. Other resources include the [Centre for Academic Communication](#) and the [Math and Stats Assistance Centre](#).

The International Student Liaison in the Economics Department is Dr. Paul Schure who can help you connect with other international and domestic students in the Department. His email address is schure@uvic.ca. Please, reach out if you are interested.

Course Experience Survey (CES)

I value your feedback on this course. Towards the end of term you will have the opportunity to complete a confidential course experience survey (CES) regarding your learning experience. The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future.

When it is time for you to complete the survey, you will receive an email inviting you to do so. If you do not receive an email invitation, you can go directly to the [CES log-in](#). You will use your UVic NetLink ID to access the survey, which can be completed on your laptop, tablet or mobile device. I will remind you nearer the time, but please be thinking about this important activity, especially the following three questions, during the course.

What strengths did your **instructor** demonstrate that helped you learn in this course?

Please provide specific suggestions as to how the **instructor** could have helped you learn more effectively.

Please provide specific suggestions as to how this **course** could be improved.

Course Structure

The coverage below is preliminary and may change in response to class needs and student feedback. Readings and other material will be listed on a lecture-by-lecture basis on Brightspace.

Week 1 (May 9)

Topics: Introduction

Week 2 (May 13, 16)

Topics: Incremental Benefit Costs Analysis, Discount Rates & Perspectives

Week 3 (May 23)

Topic: Discounted Cash Flow Analysis (DCFA)

Week 3 (May 27, 30)

Topics: Net Present Value & Annual Worth, IRR

Week 4 (June 3, 6)

Topics: Replacement Decisions, IRR

Due Date: Project 1 on June 3

Week 5 (June 10, 13)

Topic: When the IRR “breaks”, Adjusting for Inflation

Midterm: Midterm 1 on June 13

Week 6 (June 17, 20)

Topics: Switching Values & Decision Trees, Probabilistic Sensitivity Analysis

Week 7 (June 24, 27)

Topic: Risk Assessment, Costing & Project Identification

Due Date: Project 2 on June 27

Week 8 (July 4)

Topics: Shadow Prices

Week 9 (July 8, 11)

Topic: Contingent Valuation

Midterm: Midterm 2 on July 11

Week 10 (July 15, 18)

Topics: Valuing Human Life, Travel Costs

Week 11 (July 22, 25)

Topics: Benefit Transfer, WTP vs WTA

Week 11 (July 29, August 1)

Topics: Equity & Fairness, Sustainability

Due Date: Project 3 on August 1

Learning Outcomes

Economics studies the allocation of limited resources among unlimited needs and wants. Cost-benefit analysis (CBA) is a common technique used by many disciplines, and required by many organizations, to make efficient resource allocation decisions. Unfortunately, CBA is often done poorly. This course will help you understand the techniques, advantages and limitations of CBA.

By the end of the course, you'll be able to read and critique published cost benefit analyses, create your own simple CBA, and hopefully have ideas on how to contribute to this evolving body of knowledge. sources.

E-mail Correspondence

Emails should be limited to critical matters, such as inability to attend class, an exam, or prolonged illness, and should include the course name and number in the subject line. Questions on course material should be asked during office hours or in class. The standard format for writing a letter must be used. This means it should begin with a salutation (e.g. Dear...), include full sentences and it must conclude with a signature that includes your **full name and V#**. Text message lingo should not be used.

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Use of AI

For the purposes of this course, use of generative AI is viewed in the same light as getting help from a classmate. If it would not be appropriate or allowed if another student were doing it for you, then it's not appropriate or allowed for (e.g.) ChatGPT to do it for you, and the same restrictions regarding citations, plagiarism, etc. apply. This also means that in cases where you are allowed to seek help from classmates, you are allowed to use generative AI. Please note that, similarly to unsupported statements from a classmate, material created by generative AI, in response to queries by yourself or someone else, is not considered to be an authoritative source.