

**COST-BENEFIT ANALYSIS**  
**ECONOMICS 2184B-001**  
Department of Economics  
Western University

**Instructor's Name:** I. Trela

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**Classroom meeting time(s) and location:** T 3:30 - 4:30 SEB 1200; TH 3:30 - 5:30 SEB 1200

**Office Hours:** T 10:30-11:30, TH 11:30-12:30, or any time my office door is open

**Course website:** <https://owl.uwo.ca/portal>

**Undergraduate inquiries:** 519-661-3507 SSC Room 4075 or [econugrd@uwo.ca](mailto:econugrd@uwo.ca)

### **Registration**

You are responsible for ensuring you are registered in the correct courses. If you are not registered in a course, the Department will not release any of your marks until your registration is corrected. You may check your timetable by using the Login on the Student Services website at <https://student.uwo.ca>. If you notice a problem, please contact your home Faculty Academic Counsellor immediately.

### **Prerequisite Note**

The prerequisite for this course is Economics 2151a/b.

*Prerequisite(s) for your course found at:* <http://westerncalendar.uwo.ca/2017/pg904.html>

You are responsible for ensuring that you have successfully completed all course prerequisites, and that you have not taken an anti-requisite course. Lack of pre-requisites may not be used as a basis for appeal. If you are found to be ineligible for a course, you may be removed from it at any time and you will receive no adjustment to your fees. This decision cannot be appealed.

If you find that you do not have the course prerequisites, it is in your best interest to drop the course well before the end of the add/drop period. Your prompt attention to this matter will not only help protect your academic record, but will ensure that spaces become available for students who require the course in question for graduation.

## Course Description

The purpose of cost-benefit analysis (CBA) is to help in public sector decision making – to determine whether proposed public projects and policies will ultimately benefit or disadvantage society. Most economists view this area as applied welfare economics and this course is designed to acquaint students with this area of economics. CBA is a normative tool used to describe how decisions *should be* made. As such, it is not a description of how political and bureaucratic decision makers *actually make* decisions. Basic concepts and methods will be fully integrated with illustrations and practical examples in order to effectively convey the essential tools of CBA. For exams, students will be required to not only understand the theory of CBA, but also how to apply it to analyze independent cases.

## Course Learning Outcomes

Students will be able to explain how to use microeconomic theory to assess social costs and benefits in cost-benefit analysis.

Students will learn how to analyze problems of social choice using cost-benefit analysis.

Students will be able to apply discounting methods for intertemporal comparisons of social costs and benefits.

Students will be able to understand the meaning of an efficient distribution of resources.

Students will learn how cost-benefit analysis can contribute to, as well as provide a useful vehicle for understanding the practical value of welfare economics.

Students will be able to understand the concept of market failure and the efficiency justification for government intervention.

Students will be able to identify the distributional consequences of changes in social surplus that result when new policies, programs, or projects are implemented.

Students will learn about the main problems that arise in a typical cost-benefit exercise, including double-counting and the monetization of intangibles.

Students will understand the importance of accounting for the efficiency impacts of taxes on government inflows and outflows.

Students will be able to analyze the impact of uncertainty on cost-benefit analysis.

Students will be able to use cost-benefit analysis as a normative tool to formulate economic advice and evaluate government policy.

## Textbook

A.E. Boardman, D.H. Greenberg, A.R. Vining, and D.L. Weimer, *Cost-Benefit Analysis: Concepts and Practice*, 4th Edition, Prentice Hall, 2011.

The textbook is also available as a **Pearson E-Text**, which you can order through the campus book store.

The textbook is also available on 2 hr reserve at D.B. Weldon Library.

## Course Website

<http://owl.uwo.ca> : this site gives you access to lecture notes, homework questions, review questions, and announcements (i.e. assignment due dates, class cancellations, final exam information, and other announcements). The lecture notes posted on the course website are supplementary material and should not be regarded as a substitute for lectures. There will be a significant amount of additional material covered in class that is NOT in the posted lecture notes. Students are reminded that all class material (including posted lecture notes and additional material covered in class that is not in the posted lecture notes), homework questions and review questions will be subject to examination.

## Grading

|             |   |     |
|-------------|---|-----|
| Midterm*    | Scheduled for Thursday, March 1, 7-9pm    | 40% |
| Final Exam* | To be announced by the Registrar's Office | 60% |

\* The midterm and final exams will each be 2 hours in length and in multiple choice format. Questions will be a mix of theory questions (in multiple choice format), true and false statements (in multiple choice format), problems (in multiple choice format), and questions based on information presented in graphs (in multiple choice format). Students will know the result of their midterm grade by Sunday March 4<sup>th</sup> in order to make a decision regarding dropping the course by the drop deadline.

Note: Computer marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Note: Use of electronic devices (cell phones, iPods, iPads, laptops, etc) and dictionaries are not allowed during exams; electronic devices caught in a student's possession or on will be taken as an attempt to cheat. Students are also banned from wearing or having on their desk any kind of wristwatch/timepiece during exams (time will be displaced on either a wall clock, board or projector). During exams students may use only a non-programmable/non-graphing calculator (but lids/covers must be removed).

## Missed Exams

Makeups will be granted with **approved documentation only**. Please follow these procedural instructions:

- If you have a conflict with one of the exam dates, you must seek approval from your Faculty's Academic Counselling Office for accommodation and notify me **at least one week before** the regularly scheduled exam so that I can schedule you for a makeup exam.
- If you **miss an exam** due to illness or other extenuating circumstances, you must notify me of your absence **within 48 hours of the start-time of the missed exam** and provide documentation to your Faculty's Academic Counselling Office. If you miss an exam for medical reasons, you should visit a doctor to obtain documentation of your illness (I strongly urge you to do this **the day of the missed exam**) and, when you are well enough, fill in the Student Medical Certificate form [https://studentservices.uwo.ca/secure/medical\\_document.pdf](https://studentservices.uwo.ca/secure/medical_document.pdf) and return it to your Faculty's Academic Counseling Office. If your Academic Counsellor and I agree that your reason for missing the exam is legitimate and supported by your documentation, you will be allowed to write a makeup exam.

**Note: Make-up exams will be in the same format as the regularly scheduled exam.**

## Course Outline

- I. Introduction to Cost-Benefit Analysis  
Ch. 1, pp. 1-7 (up to, but not including Decide whose benefits and costs count (standing)), 8-15 (up to, but not including Bureaucratic and Political "Lenses")
  
- II. Microeconomic Foundations of Cost-Benefit Analysis  
Ch. 3, pp. 1-61 (up to, but not including Profits and Factor Surplus), 62-65
  
- III. Valuing Benefits and Costs in Primary and Secondary Markets  
Ch. 4, pp. 78-89 (up to, but not including Information Asymmetry), 91-97 (up to, but not including Intrapersonal Externalities: Consumption under Addiction), 99-108 (up to, but not including Purchases from a Monopoly)  
Ch. 5, pp. 115-123, 126-129
  
- IV. Discounting, Compounding and Dealing with Uncertainty  
Ch. 6, pp. 133-141 (up to, but not including Continuous Compounding), 142-145 (up to, but not including Problems with Indices Based on Consumer Prices), 147-148 (up to, but not including Estimates of Expected Inflation), 149-151 (up to, but not including Relative Price Changes), 152-155 (up to, but not including Reprise of Horizon Values)  
Ch. 6 Appendix, pp. 159-162

Ch. 10, pp. 238-242 (up to *and including* the first paragraph of Equality of Discount Rates in Perfect Markets), pp. 249-251 (up to, but not including Numerical Values of  $r_z$ ), pp. 254-255

Ch. 7, pp. 167-177

V. Techniques for Valuing Benefits and Costs

Ch. 9, pp. 224-231

Ch. 13, pp. 320-332 (but not all the material will be covered)

Ch. 14, pp. 341-365 (but not all the material will be covered)

Ch. 15, pp. 372-393 (but not all the material will be covered)

Ch. 16, pp. 406-437 (but not all the material will be covered)

**Please Note**  
Department Policies for 2017 – 2018

Remember that the University expects all students to take responsibility for their own academic Programs. Also remember to check your registration to make sure you are enrolled in the correct courses.

1. Guidelines and policies for the Faculty of Social Science and the Department of Economics are posted online in the current Western Academic Calendar at <http://westerncalendar.uwo.ca>.
2. Students must familiarize themselves with the “Rules of Conduct for Examinations” <http://westerncalendar.uwo.ca/2017/pg136.html>.
3. **Cheating as an academic offence:** Students are responsible for understanding what it means to “cheat”. The Department of Economics treats cheating incidents very seriously and will investigate any suspect behavior. Students found guilty will incur penalties that could include a failing grade or being barred from future registration in other economics courses or programs. The University may impose further penalties such as a notation on your official academic transcript, suspension or expulsion.
4. **Plagiarism:** Students must write their essays and assignments in their own words. Whenever students take an idea or a passage from another author, they must acknowledge it by using quotation marks where appropriate and referencing with footnotes or citations. Plagiarism is a major academic offence (see Scholastic Offence Policy in the current UWO Academic Calendar at <http://westerncalendar.uwo.ca/2017/pg113.html>).

The University of Western Ontario uses software to check for plagiarism and students may be required to submit their written work in electronic form. Those found guilty will have penalties imposed as noted in point 3.

5. It is Department of Economics policy that **NO** assignments be dated, stamped or accepted by staff. Students are responsible for submitting assignments in class or to the instructor during office hours.
6. When appealing a mark, students should refer to the University’s Procedures in the current UWO Academic Calendar (<http://westerncalendar.uwo.ca/2017/pg112.html>). Please note the relevant deadlines.

The Department will not consider any appeal unless an attempt has been made to settle the matter first with your instructor. If after this discussion you remain dissatisfied with a grade or other decision, you may proceed with a written appeal (e-mails are not acceptable) to the Undergraduate Director in Economics, stating the reasons for your appeal. A useful form and checklist is provided at:

[http://economics.uwo.ca/undergraduate/program\\_counselling/responsibilities\\_policies.html#appeals](http://economics.uwo.ca/undergraduate/program_counselling/responsibilities_policies.html#appeals)).

7. Systematic adjustments of a class grade distribution (either up or down) can occur in Economics courses. The fact that grades have been adjusted is **not** grounds for an appeal.
8. Note the following add and drop deadlines:  
  
Last day to **add** a 1<sup>st</sup> term half course:  
**Friday, September 15<sup>th</sup>, 2017**  
  
Last day to **drop** 1<sup>st</sup> term half course without academic penalty:  
**Monday, November 13<sup>th</sup>, 2017**  
  
Last day to **add** a 2<sup>nd</sup> term half course:  
**Tuesday, January 16<sup>th</sup>, 2018**  
  
Last day to **drop** 2<sup>nd</sup> term half course without academic penalty:  
**Wednesday, March 7<sup>th</sup>, 2018**
9. Faculty of Social Science policy states that oversleeping or misreading an exam schedule is not an excuse for a make-up. This rule applies to all mid-term tests and final exams in the Department of Economics.

### **Policy Regarding Makeup Tests and Final Examinations**

*Academic accommodation will **not** be granted automatically on request. You **must** demonstrate by documentation that there are **compelling** medical or compassionate grounds before academic accommodation will be considered.*

If you decide to write a test or an examination, you must be prepared to accept the mark you earn. Rewriting tests or examinations, or having the value of the test or examination reweighted on a retroactive basis, is **not** permitted. Book airline flights after you know the dates of your final examinations. Airline flights must not conflict with test or final exams.

If you are requesting a makeup test for a midterm or a final examination, unless medically incapable, notify your instructor by email or phone, preferably prior to the scheduled date of the test, but definitely within **24 hours** of the date of the test or exam. Failure to follow this procedure may result in denial of a request for academic accommodation or result in a grade of zero. Set up an appointment as soon as possible to meet personally with your instructor. If the instructor is not available, you may send an email message, copying the Undergraduate Coordinator at [econugrd@uwo.ca](mailto:econugrd@uwo.ca) (Social Science Room 4075). **Notifying your instructor of a missed test or exam does not automatically entitle you to a makeup test.**

Students who seek a makeup test or examination must provide medical or other relevant verification that their absence from a regularly scheduled test or examination is beyond their control. Documentation must support your reasons. Medical documentation should be given to the Academic Counselling Office of your *home* Faculty **as soon as possible (preferably within 24 hours of the test)** if you know you may not be able to write your final examination on the scheduled day and time. Failure to follow this procedure, or to provide supporting documentation, may result in denial of a request for academic accommodation or result in a grade of zero. If your

documentation is not acceptable, you will be given a zero for the missed test.

For personal illness, if you consult Student Health Services regarding your illness or personal problem, you should request a Student Medical Certificate from the physician. If you were seen by an off-campus doctor, obtain a certificate from his/her office at the time of your visit. The off-campus medical certificate form must be used and can be found at: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/medicalform.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf). Notes stating "For Medical Reasons" are not considered sufficient.

For any other circumstances, if you are not sure what documentation to provide, ask your Academic Counsellor. If your documentation is judged sufficient, the Academic Counsellor will issue a Recommendation for a Special Examination (a single form for midterms or a triple color form for final examinations). Once you have this form, contact your instructor as soon as possible to make arrangements. Even if approved from your home faculty Academic Counsellor, there is no guarantee that you will be allowed to write the makeup test and exam.

For final examinations, you need permission from your *home* Faculty Counsellor, your instructor, and the Department Undergraduate Director. Failure to follow this procedure may result in an examination grade of zero. You must ensure that the Special Examination form has been signed by the instructor and Department Undergraduate Director and that the form is returned to the Academic Counselling Office for approval without delay. Make-up final examinations, if permitted, will be written within one month of the end of the exam period.

### **Policies Regarding Academic Accommodation**

Information about the Faculty of Social Science's policies regarding academic accommodation is found on its website at <http://counselling.ssc.uwo.ca/procedures/havingproblems.asp> or in Social Science Room 2105. Your "Academic Rights and Responsibilities" are also outlined in the current UWO Calendar at <http://westerncalendar.uwo.ca/2017/pg111.html>. Claiming that "you didn't know what to do" is not an acceptable excuse for not following the stated procedures.

### **Policy Regarding Class Attendance**

If your instructor views your class attendance as unsatisfactory, you can be prohibited from writing the final examination. If there is intent to make use of this University policy, you will be notified in writing.

### **Statement on Mental Health and Support Services**

If you or someone you know is experiencing emotional/mental distress, there are several resources here at Western to assist you. Please visit <http://www.uwo.ca/uwocom/mentalhealth/> for more information and a complete list of resources, as well as how to obtain help.