Evaluation of Economic Policy and Programs
ECON 4140/7150 (Fall 2021)

Sept 1, 2021

Location	Virtual (UM Learn and Cisco Webex)
Time	Wednesday 2:30 – 5:15 pm
Instructor	Greg Mason
Office hours	This is a WebEx enabled class and virtual appointments may be arranged. Please see How We Will Communicate
Contact phone	204 474 8670
Contact e-mail	gregory.mason@umanitoba.ca (the best way to contact me)
Course website	UMLearn (All course materials appear on UMLearn for registered students.)
About me	www.gregorymason.ca

Overview

I have spent much of my academic and professional life trying to understand the contribution of public policy and programs to human wellbeing. In this course, I share my experiences in measuring the value-for-money of a wide range of public policies.

This course blends economic theory, statistics, quantitative and qualitative methods, and program evaluation in the assessment of public policy and programs. The focus is on government intervention in a mixed economy primarily because public sector policies are usually not subject to market assessment of value.

In this course, you will apply economic evaluation (cost-benefit and cost effectiveness) to assess the value-for-money of diverse public policy and programs in health, agriculture, infrastructure investment, anti-poverty measures, environment & climate change, cultural investments, urban planning, foreign aid, etc. You will increase your understanding of the economic and program evaluation methods used in government to measure the net contribution of public policy to enhancing individual and collective well-being.

Case study 1: The Canadian Child Tax Benefit is a refundable tax benefit designed to increase financial support for Canadian families. It is intended to improve the welfare of children. Does it do that? What do we mean by welfare of children? Do some families benefit more than others? Is this an efficient way to redistribute income?

Key Information
Grading plan
Due Dates
Learning schedule
Final Paper
Exams
Paper Topics
Packback
Fine print (academic honesty, student access, etc.)

The core idea of the course

In a world of finite resources, a policy such as a tax on carbon, environmental regulation, or subsidies for day care become options for an intervention, *including doing nothing*. Measurement of the unique contributions of a policy must occur in relation to the value of all other approaches to reaching the goals of increased efficiency, increased effectiveness, or increased equity, or all three… they may not be mutually exclusive.

Just as a parent reaches to prevent a child from touching a hot stove, society elects to intervene in the natural course of events to reach a preferred outcome. Public policy analysis includes *designing* and *evaluating* these interventions. This course examines the methods for assessing the value proposition of public policies, programs, and projects. Determining when to intervene, that is when to guide the invisible hand, is the central policy question.

This is not an easy course and there is work. But it will prepare you for your next career phase, whether it be graduate school or employment in industry/government. I will provide rapid feedback and opportunity to improve throughout the course. You will be assessed both on your individual contributions and the collaborations you have with other students.

Learning Outcomes (What you will get out of this course)

In addition to learning the technical material in this course you will:

> **Case study 2**: Vaccination rates for school age children are falling. Now we hear of outbreaks of measles and mumps, and not just children, but professional sports teams. How do we measure the full cost of falling vaccination rates? What is the cost-effectiveness of alternative policies to increase vaccination rates? Of course, Covid has made this discussion even more relevant.

1. Increase your ability to develop analytical approaches to the assessment of value for money in public policy through:

   – exposure to the theory and practice of cost-benefit as well as program evaluation; and

   – debate, independent research and presenting your research to your colleagues.

2. Gain a deeper understanding of a specific policy or program that interests you and/or aligns with your studies through active dialogue with your colleagues in class.

3. Develop a sound economic framework for measuring the value-for-money for a wide range of public policies and programs.

4. Learn how to prepare a concise written economic plan to evaluate an existing or proposed policy/ program/public investment or a critique of a methodological or theoretical element of economic evaluation. This report will be at an academic/technical level to support further graduate study as a job paper.

Since you will perform individually and as part of teams, this course will also offer the opportunity to develop individual and group responses to an issue/problem.

Course map

A virtual course presents both challenges and opportunities. The lack of in-person presence can create isolation and removes the real experience of learning from one's peers. At the same time, I firmly believe that technology enabled teaching has much to offer.

The course has two modes.

- First, in class mode, a three-hour (approximately) session occurs each week on Wednesdays starting at 14:30 and with three parts.

  1. In the first 50 minutes or so, I will review core concepts in a lecture and Q&A format, with questions posed to the class. Lecture notes and key questions appear on the course web site and I assume that students will review the class notes and other materials on UM Learn prior to the class. I usually insert additional thoughts and stop for questions, so take notes. Printing a hard copy and making annotations on the slides is an effective way to record additional ideas. The hard copy versions of the slides have space for notes, so you will be able to create a text, suitable for binding (or at least sticking on the shelf. Note: research confirms that had writing notes increases knowledge.

> **Case study 3**: Subsidising agricultural insurance is common to compensate for market failure. This is done to avoid economic losses because famers choose may not to purchase insurance. Subsidising insurance prevents farm bankruptcies and larger economic losses. Some agricultural economists dispute the need for subsidising farm insurance.

  2. The second 50 minutes will feature a review of key readings. Students will take turns reviewing the readings, critiquing the readings, and presenting potential alternatives to the research method in the articles. The assignment of the readings appears under the "Welcome" Module of UM Lean for this course.

  3. The final segment of the session will be a policy/methodology debate among teams formed from the class. Preparation of the debate/discussion occurs in the UM Learn Discussion Board.

- Second, with independent study mode, much of the course occurs *asynchronously* (thanks to COVID new words have entered the pedagogical lexicon). So, the discussion preparation occurs outside of class time using MS Teams. I have assigned you to a Team.

  I am also trying a new technology called Packback where I pose questions each week. I describe this in more detail below. Both the discussions and Packback will support the participation score in the class.

The course has two phases.

- Phase 1, comprises the initial 8 weeks or so, and presents the core theory of economic policy/program evaluation.

- Phase 2, explores economic evaluation applied to important public policy issues.

Learning resources

Lecture notes, articles referenced/provided and other guidance will be available on the UMLearn site for this course. All registered students have access to these materials and there is no text. The only charge for the course is enrolling in Packback

Also available on the UMLearn course site is guidance on paper preparation (videos on Zotero, writing in the active voice, and examples of exemplary past papers.)

It is your responsibility to lean UMLearn and how to use this to support you learning. All the course materials (lectures, videos, discussion group topics, and assignment/exam submission) occurs through this site. With a valid signUM id (registration, email, and library access) and registration in this course you have automatic access.

General instructions for using UMLearn appears at
https://universityofmanitoba.desire2learn.com/d2l/le/news/6606/130501/view
You must have a computer (PC/Mac) that can perform word-processing, calculations, and with internet access to participate in the class and upload to UMLearn.

How the course assessment works

The assessment aligns with the objectives of the course.

Examinations: I will use a mid-term exam of 90 minutes and a final examination of 2 hours to assess your understanding of the first of the learning outcomes. All exams are open universe and will assess your knowledge of the theoretical foundation of economic policy formation and the methodology of assessing value-for-money. The case studied will be posted on UM Learn (Assignments) two days before the exam questions will appear for the test period. You will upload your responses to the relevant Assignments folder where these are located.

UM Learn enforces deadlines strictly. All your uploads to UM Learn must occur within a specified time (exams) and before a deadline (paper). Under no circumstances will I accept any paper or exam by email.

Paper: This has two elements will assess your ability to develop a framework/literature review and to prepare an economic plan/critical review. I have two possible themes for the course: A) develop an evaluation plan for a policy or program; or B) Develop a critical review of a foundation issue in economic evaluation. See possible paper topics.

The final grade will use the assessment elements as follows

- o Mid-Term Exam - 15%
- o Final Exam – 20% (see below). The exams will draw from all aspects of the course. You will receive four general questions 24 hours before the exam and you will provide answers to two (with some specific addition questions.)
- o Presentation: Paper Synopsis 5%
- o Paper Element 1 - 15% (See below for a review of role of the paper in your learning)
- o Presentation: Element 2 – 10%
- o Paper Element 2 - 25
- o Class participation – 10% (using my evaluation of your participation in the presentations, discussions and teams and the Packback score). I will provide qualitative feedback on participation at the mid-point of the so you may calibrate your effort. I will not assign a participation grade at this point.

Numerical grade conversion: A+ (>90), A (>80), B+ (>75), B (>70), C+ (>65), C (>60), D (>50), F (<50).

This is a blended course with upper year undergraduates and graduate students. I expect graduate students to show more capacity and higher levels of performance.

1. The Mid-Terms and Final Exams will be different for undergraduates and graduate students in the sense that the questions will be different; I expect more economic and academic sophistication from graduate students. See Exams.
2. The final papers also have different parameters.

I separate the "pools" of undergraduate and graduate students for the purposes of marking..

My expectations for deportment

The University of Manitoba expects all staff and students to conduct themselves professionally, responsibly, and with courtesy.

Your obligations

What this means specifically for students is the following

1. I expect students to review the lecture notes and papers prior to each class. Discussion and debate are critical mastering the course material. I plan to examine on the course notes, the readings, and the discussions we have in class, so plan to attend classes as much as possible.

2. Since some work will be in groups and collaboration, you may gain personal information on your colleagues such as e-mail addresses, please use this information responsibly.

Case study 4: Advocates of active transportation (cycling/walking) argue for increased allocation of road space to these forms of transportation. They assert that such policies provide benefits to all members of society. Is this true? How can we assess the value of increased cycling infrastructure in a city such as Winnipeg, Vancouver, Beijing?

3. If you make an appointment during the office hours, please honour that or communicate with me by email that you will not or cannot attend.

4. Be careful with citations and observe the basic dictum to treat other authors' intellectual property as you would wish your own to be treated.

5. I always check for plagiarism and after 40+ years of teaching I am pretty good at detecting it.

6. The university has regulations concerning academic dishonesty. Please see the **fine print** section below.

7. Celebrate different viewpoints and view these as the source of intellectual growth.

My obligations

For my part

1. I will return feedback on submitted written material within 5 business days after a deliverable is due (Final Papers excepted as I retain these until the final marks are approved).

2. I will respond to email within 8 hours between 8am and 10pm, except between Friday evening and Sunday morning, when responses will be slower.

3. My office hours will remain stable and will occur Mondays and Tuesdays between 7:30 and 9:30 (central time). Make an appointment within the Webex scheduling system. Other appointment times are possible – email me,

4. You can expect me to be fair in all assessments and offer clear reasons for my marking. You always have the right to appeal. I will post the best answers to questions posed on examinations (anonymously) and the best papers (except the Final) so that you can assess your work against the work of the best students in the class. I also have posted excellent papers from past courses so you understand my expectations.

Copyright

All lectures and videos material posted on UMLearn otherwise distributed for this course are copyright to Gregory Mason. You may record lectures for your personal use, but do not post or share them or any share other material made available for this course unless they are third party sourced (i.e., have a URL or permalink).

How we will communicate

You may contact me through university e-mail … please do not use any other email service as I ignore these messages. The university policy on email appears [here](#).

In an emergency (the dog ate your flash memory drive 30 seconds before the deadline for uploading your paper to UMLearn), you may also phone me at the number on the front page… it forwards to my cell. I turn my cell off at certain times (dinner with my wife, sleeping, Friday night and Saturday, etc.) which is something we all need to do for our mental health.

I will not respond to text messages, emails from a non-university account, or any social media. Please monitor your university email daily as this and UMLearn announcements will be our primary means of communicating about this course outside the class.

Collaboration

This course requires collaboration in presenting readings and discussion of key questions posed for each seminar (see UMLearn). You will learn the email addresses of other students within your group; please use this information responsibly.

All communication between myself and you as a student and among students must comply with the electronic communication with student policy. (http://umanitoba.ca/admin/governance/governing_documents/community/electronic_communication_with_students_policy.html). You must obtain and use your U of M email account for all communication between yourself and the university and with me.

Final Paper

Overview

A goal of this course is to develop skills at preparing a high-quality research paper to meet academic, government, and industry standards. We will review how to structure a paper, develop a literature review/program profile, use reference resources to locate and organize bibliographies, and otherwise create a document to academic and industry standards. Resources exist on the UMLearn course site to support you.

Please choose whether you wish to prepare a paper under Option 1 or 2, by September 24. I will assign a topic, *unless you send me an email with your choice*. (Do you really imagine you will choose research topics in your career with government or industry?)

The paper has two options, corresponding to deliverables outlined in the learning schedule. Within each Option two elements exist that vary with the paper option you are preparing.

Option 1: Evaluation plan for an existing or hypothetical program

With this option you will prepare an evaluation plan of an existing program/policy, drawn from existing government/NGO interventions or an intervention you design.

Option 2: Critical review of some theoretical aspect/issue/deficiency of economic evaluation of a public program or policy.

This paper will develop a critical evaluation of some aspect of the economic evaluation of programs/policies. This paper will suit someone with a strong economic theory and research methods background.

Both papers will present two elements.

Option 1
- *Element 1:* The first deliverable is a program profile that describes the origins of the program and its theory of change (the mechanism by which a policy or program effects changes in the social, economic, and biophysical environment.)
- *Element 2:* The second deliverable will complete the evaluation plan, adding a matrix of issues/questions, and a research methodology to the program profile to form an integrated evaluation plan.

Option 2
- *Element 1:* The first deliverable is a literature review that presents the theoretical context for the issue. This should describe the historical origins of the issue and why it remains an important issue/problem today.
- *Element 2:* The second deliverable will present a suggested resolution. The goal is to present an argument for one of the suggested ways one might address the aspect/issue/deficiency. If your research suggests no resolution.

Option 1 (Evauation Plan)	Option 2 (Theoretical Development)
Element 1 Program profile (description of the social/economic/environmental context for the program, statement of the program theory and the expected outcomes.)	**Element 1** Literature review (origins of the issue and proposed solutions, discussion of the main questions, and their importance to evaluation
Element 2 Element 1 (revised) + measurement of outcomes, evaluation methodology and data collection plan.	**Element 2** Element 1 (revised) + development and argument to develop and defend a position on the issue.

See suggested topics here.

Examples of excellent work, both undergraduate and graduate from previous years appear on the UMLearn course site.

> **Case study 5**: In primary health care, it is common to advocate screening to detect cancer in its early stages. The presumption is that screening saves lives and money. Decision theory shows that this is not necessarily always the case and the aggregate costs of screening can exceed the aggregate benefits.

Paper Form

For Undergraduate Students. The final papers must not exceed 4000 words (exclusive of references and any appendices). Each element should comprise approximately 50% of the final paper. The final paper must read as an integrated essay and not two separate documents.

For Graduate Students. The final papers must not exceed 6000 words (exclusive of references and any appendices). Each element should comprise 50% of the final paper. The final paper must read as an integrated essay and not two separate documents. I expect graduate work to reflect additional sophistication in theory and presentation.

I maintain these lengths strictly, since a goal of this course is to express an economic evaluation concisely.

Note: This course outline is about 7000 words.

For both undergraduates and graduates, I expect the theoretical and economic analysis, as well as the form (referencing, completeness of bibliography, etc.) to be at a high level reflecting the standards for undergraduate and graduate research papers/theses depending on your level.

The references must be in APA format. I strongly recommend students learn to use a reference manager such as Zotero or Mendeley. Instructional videos on Zotero appear on the UM Learn course web site. Do not cut and paster tables and figures – develop these in Excel/PowerPoint or other software and insert these as jpegs, gifs…)

Marking Rubric

I will use the following rubrics for marking the paper submissions

Option 1: Evaluation Plan			
Element 1 Criteria	Max	Actual	Comments
Form (referencing, completeness of source material, referencing accuracy, and integration of hyperlinks and permalinks, etc.)	5		
Writing (use of active voice, freedom from spelling /grammar errors, logical layout and transitions, section transitions, ease of reading, etc.)	10		
Content (soundness of the profile, creation of a plausible theory of change, development of evaluation matrix with useful questions.			
Total	30		
Element 2 Criteria			Comments
Form (referencing, completeness of source material, referencing accuracy, and integration of hyperlinks and permalinks, etc.)	5		
Writing (use of active voice, freedom from spelling /grammar errors, logical layout and transitions, section transitions, ease of reading, etc.)	10		
Content (development of reliable/valid measures, effective method and a sound evaluation plan)	15		
Total	30		

Option 2: Critical Review			
Element 1 Criteria	Max	Actual	Comments
Form (referencing, completeness of source material, referencing accuracy, and integration of hyperlinks and permalinks, etc.)	5		
Writing (use of active voice, freedom from spelling /grammar errors, logical layout and transitions, section transitions, ease of reading, etc.)	10		
Content (complete and balanced literature/issue review and clear identification of the main issues.	15		
Total	30		
Element 2 Criteria			Comments
Form (referencing, completeness of source material, referencing accuracy, and integration of hyperlinks and permalinks, etc.)	5		
Writing (use of active voice, freedom from spelling /grammar errors, logical layout and transitions, section transitions, ease of reading, etc.)	10		
Content (clear rationale for the suggested resolution and recommendations for future work.)	15		
Total	30		

Important information on the submission of papers

Submit your papers electronically in **Word** (and *not* as a .pdf or other format) via the UMLearn assignments folder. Note the method enforces the due date and you will not be able to upload your paper after the due date. Don't be that person who I need to ask for proper version of paper. **Please submit before the deadline. Do not email me your paper. If you miss the deadline, deposit 200 Bitcoins in an account I shall provide and then we can talk. In other words, try not to miss deadlines.**

Exams

I will use a mid-term and final exam to assess your knowledge of the course materials.

The exams will be **open universe exam**, you may access all course materials and any Internet resource during the exam. If you keep up with the readings and participate in class, you will not need to "cram" for the exams. I am testing on your ability to apply the theory and methods learned in the course, and not to regurgitate facts.

Cases will be posted on UMLearn a few days in advance of the test. You will see the questions once you access the exam.

The mid-term will be for 1.5 hours in class, and the final will be 2 hours in the normal examination period set by the registrar.

My philosophy is that grading should reflect students' ability on course exit. If you perform better on the final than the mid-term, I will base the exam component (40%) solely on the final exam mark. If your mid-term is better than the final, I will blend the two marks in the ratio as presented in the course assessment.

You will access and administer the exams through the Assignment function in UMLearn. A video on the course site explains how to do this and provides a "practice" file to get this right. Please leave your video on during the exams

UMLearn is a very strict enforcer of the exam end time; you must upload your answers before the exam end-time, or UMLearn will lock you out. Smart students upload their answers throughout the exam time – the most recent version or your exam overwrites earlier version. I will not accept papers submitted by email. Don't be that person who pleads they "forgot time."

Structure of the weekly seminar		
Component	Discussion	Notes
Lecture	Presentation based on slides and other material posted on UMLearn	I will not follow the slide presentation but may adjust the lecture based on current issues and personal whim. Se UMLearn for the source materials
Reading	Students will alternate in a critical presentation of recent research	See UMLearn for the assignments.
Discussion/Debate	Students become team members to prepare responses to issues in measurement and evaluation. (See UMLearn for more details)	See UMLearn for the team allocations and assignments.

Learning Schedule Check UMLearn for supporting materials and details for each class meeting		
Module	Date	Topic
1	Sept 8	**Economic Foundations of policies, programs, and projects** The lecture will review the economic foundations of policies and program.
2	Sep 15	**Theory, logic models and evaluation frameworks** A "map" of a policy/program sets the foundation for evaluation and impact measurement.
3	Sept 22	**The cost-benefit model** This module introduces the standard cost-benefit model for *ex-ante* assessment of capital projects. However, this model also applies to many policies. In this module we review the financial foundations of the cost-benefit model.
4	Sept 29	**Measuring impacts and outcomes 1: Random Controls, Natural Experiments, and net impact** Measuring net impact is a core challenge for economic evaluation. The Module examines the experimental approach to measuring net impact, with emphasis on the threats to validity for causal analysis using randomized designs.
5	Oct 6	**Measuring impacts and outcomes 2: Quasi-experiments** When experiments are not feasible, can we restructure data to infer causal relationship with some certainty?
6	Oct 13	**Measuring outcomes – stated and revealed preference.** Economists usually rely on observed market data to measure preferences and outcomes (revealed preference)

Learning Schedule Check UMLearn for supporting materials and details for each class meeting		
Module	Date	Topic
		Presentation of planned paper (2 minutes… please post slides (3 max) on the relevant UM Learn Assignment)
7	Oct 20	**Measuring costs of programs and policies – activity-based costing and shadow pricing** Measuring costs are often overlooked when evaluating programs. However, assigning costs to programs presents a challenge especially for public sector programs.
	Oct 27	**The Mid-Term** will occur 2:30 – 4:00pm. (Email me immediately if you are unable to attend the examination) Students will upload their responses to the questions posed on the UMLearn assignments folder. Note: If you miss an exam, the only excuse will be a medical note signed by an MD. I also need an email in advance of the exam to indicate your probable absence.
8	Nov 3	**Data collection methods and costs.** This module will review core qualitative and quantitative data collection methods.
	Nov 10	**No Class (Fall Break)**
9	Nov 17	**Policy simulation to support evaluation:** This module examines how using Excel and other analytic software supports exploration of the range of outcomes for interventions.
10	Nov 24	**Evaluating health interventions** Health represents one of the most important areas of government spending. Measuring the effectiveness of health interventions represents one of the more challenging applications of evaluation
11	Dec 1	**Evaluating the basic annual income**: We will examine income and the Ontario Basic Income Pilot
	Dec 8	**Paper presentations:** I will select papers at random. Please post your slides (6 max) on UMLearn Prior to Dec 7 – 5:00 pm. You will have just 7 minutes to present your paper
	Dec 22	**Deliverable 3: Final Paper Due –** Integration of elements 1 and 2 (This date cannot change, except with written medical excuse or negotiation to have a CO with me by Dec 4.)
	TBD	**Final Exam - 2 hours scheduled by registrar during regular exam period. (Probably Dec 15)**. If you miss the final exam due to illness/accident, please consult with the Faculty of Arts office.

Key Dates and mark weights			
Date	Deliverable	Mark weight	Cum Mark
Packback	Questions and responses due Tuesday 23:59	5	5
Discussions in UMLearn	On-going discussion through the week, with presentations during the Friday class.	5	10
Sept 24	Choose Option 1 or 2 for paper. You may also choose a topic from the list or one of your own choosing or let me just assign the topic. Let me know by email by September 24, 23:59.		
Oct 13	Class presentation of your topic (2 - minute elevator speech)	5	15

Key Dates and mark weights			
Date	Deliverable	Mark weight	Cum Mark
Oct 27	Mid-Term 1 (1.5 hours)	15	30
Oct 30	Element 1 due. (Literature Review or Program Profile) **23:59**	15	45
Nov 22	Voluntary withdrawal date with academic penalty	NA	
Dec 8	Paper presentation (Element 2) For the presentation, you will likely not have the paper in final form, but should have the main ideas, tables and other aspects worked out in a reasonable draft. You should have no more than 6 slides.	10	55
TBD (Most likely Dec 15)	Final exam (2 hours).	20	75
Dec 24	Final Paper Due 23:59	25	100

Potential Paper Topics

I will record preferences on a first come basis. Email me. Only one topic per student and once you have chosen, you cannot change.

Option 1 - Evaluation plan for an existing program

(Students may propose their own policy/program for this option. Please discuss with me by September 24. If you do not choose, I will select for you, which is exactly what will happen in the world of work.

- Select one of the following projects (see list) by the World Bank (http://www.worldbank.org/projects) to prepare an evaluation methodology. Note the challenge in this paper is to process many documents to create a concise evaluation plan, that focuses on measuring the essential immediate, intermediate, and ultimate results.

   Mauritania Youth Development Project
   Improving Early Childhood Development outcomes in rural Morocco
   Enhancing Economic Opportunities for Rural Women
   Rwanda – Access to Finance for Recovery and Resilience Project
   Lesotho Nutrition and Health System Strengthening Project

- Create an economic evaluation framework for the following hypothetical programs. Here the challenge is to create a plan for a program that comprises just a concept. You will need to develop context for the problem/issue ad refine the intervention. This paper combines policy/program, design and then the development of an evaluation. It is important that the paper be empirically grounded, describe the current context, and develop the intervention to create a credible results chain. Do not forget the include both efficiency and equity concerns

   1. Government decides that certain services can operate outside the Canada Health Act. Specifically, Manitoba decides to allow private groups to offer MRI imaging services. (Hint: You need to understand the current situation in terms of numbers of MRIs, credible private system of MRI services based on costs.)
   2. To accelerate the adoption of electric vehicles, the federal government decides to offer a loan guarantee of $25,000 per charging station to a maximum of $500,000 for each recipient. (Hint: You need to understand a loan guarantee program and understand the costs of charging station. The most likely participants are existing retail fuel operations that already have regular gas stations. Set a maximum number of recipients).
   3. Winnipeg is losing trees faster than they are being replaced. Imagine program where homeowners, are able reduce their property tax by ½ the cost of planting a tree (to a maximum number of trees per year). (Hint: You need to understand the cost of trees. Should there be a maximum of total number any property owner can plant? What controls need to be included to ensure program integrity? What are the benefits of preserving the tree canopy for cities such as Winnipeg?)
   4. Develop and evaluation plan to examine the Cost-Benefit of paying people to become vaccinated for COVID. (Hint. Develop a theoretical fragment for a hypothetical program in any jurisdiction of your choice. Use the jurisdiction details toad context to the program, evaluation plan, and methodology).

5. Propose your own policy.

Option 2 - Critical evaluation of some theoretical aspect/issue/deficiency of economic evaluation of a public program or policy. (These topics require a good command of economic theory)

1. Is the social return on investment (SROI) a valid alternative to cost-benefit analysis?
2. Valuing time is often a large element urban transit development. What options exist for measuring the value of time for urban travellers? How do these methods account for different modes (car, bus, and cycling)? (Hint: You may wish to ground this in a specific location)
3. Most auto insurance companies place a specific value on the loss of life, limb, or other injury. Prepare a critical analysis of these methods, and identify alternatives to citing the advantages and disadvantages of each method. Does one approach offer better measures of the value of these losses.
4. QALY (Quality Life Adjusted Years) is a common outcome measure used in health economics. What are the strengths and weaknesses of this approach? Is there a better option or is this the best we can do?
5. CBA uses aggregate utility to measure the relative interests of parties in an economic evaluation. This means the majority wins. Yet modern political/constitutional theory requires consideration of minority rights. How can the cost benefit model accommodate this new sensibility?
6. Intangible costs and benefits are often thought to be large. Develop a theoretical framework and a measurement plan for one of the following scenarios
   a. A food manufacturer experiences a listeria outbreak
   b. A pandemic forces many businesses to lay-off workers
   c. A car manufacturer receives the Motor Trend car of the year award (Hint: this paper needs to be quite inventive in the measurement of the intangibles).
7. The City of Winnipeg is studying alternative uses for its municipally owned golf courses. Develop a cost-benefit analysis for turning all golf course to a) private developers to transform the land to highest and best use or b) creating urban reserves. (Hint: A private developer would pay property taxes commensurate the value of the developed property and pay for services - water, sewer, transit, fire/police protection. An urban reserve is under section 87 of the Indian Act and would not pay property tax and may not pay full costs for services. This paper will require careful development of the CBA, applying the correct counterfactual, and identifying intangible costs and benefits.)
8. Create a cost-benefit framework to convert residential water consumption to WIFI enabled meter readings that offer real time notices on consumption, support remote billing, and allow time of day/week pricing.

Packback

Discovery rests on two ideas:

1. The answer lies in the question, as the quote from Einstein reveals.

> "If I had an hour to solve a problem and my life depended on the solution, I would spend the first 55 minutes determining the proper question to ask for once I know the proper question, I could solve the problem in less than five minutes.
>
> *- Albert Einstein*

2. We must be able to make a distinction. Up and down, in and out, stop and go… are all distinctions that order our experience. Certainly, shades of grey exist as does nuance, but at the core lie simple distinctions.

> When we communicate with Siri or Alexa, we used natural language. Compiler languages translate our words into assembler language comprising strings of "0's" and "1's". This is what we mean by "digitizing". At the base of all AI computation are zeroes and ones.

Packback is an AI (artificial intelligence) enabled process to support asking better questions, leading to better answers.

Packback Questions

> **Full Disclosure**: I have never used Packback. It may suck, in which case I apologise for any financial expense you may have incurred. But I think it may also be brilliant, and even eventually replace me in the class (☹). Combining our natural intelligence and capacity to learn, along with the AI capabilities of the software, let's see where this goes.

Participation is a requirement for this course, and the Packback Questions platform will support online questions and response about topics I pose. Packback Questions is an online community for ECON 4140/7150) where you can be fearlessly curious and ask open-ended questions to build on top of what we are covering in class and relate topics to real-world applications.

Packback Requirements:

Your participation on Packback (and UM Learn Discussions) will count toward 10% of your overall course grade.

There will be a weekly (Tuesday at 11:59PM CST) deadline for submissions. On Thursday evening I will post a basic issue in evaluation (output, outcome, measure…) and you will develop a deeper and fuller question and respond to two questions posed by your colleagues. To receive full credit, you should

submit the following per each deadline period:

- 1 open-ended Question related to the theme/issue and based prior week's lecture and readings with a minimum Curiosity Score of 70, worth 33.33% of each assignment grade
- 2 Responses every week with a minimum Curiosity Score of 70, worth 66.67% of each assignment grade

Questions and responses that do not meet the minimum curiosity score will receive 1/3 credit.

How to Register on Packback:

You will receive an email invitation from help@packback.co prompting you to finish registration. If you don't receive an email (be sure to check your spam), you may register by following the instructions below:

1. Create an account by navigating to https://questions.packback.ca and clicking "Sign up for an Account"
   Note: If you already have an account on Packback you can log in with your credentials.

2. Then enter the ECON 4140/7150 community lookup key into the "Looking to join a community you don't see here?" section in Packback at the bottom of the homepage.
   Community Lookup Key: **2ffdd612-e0d1-49a1-9d3e-4a21eec68a49**

3. Follow the instructions on your screen to finish your registration.

   Packback may require a paid subscription. Refer to www.packback.co/product/pricing for more information.

How to Get Help from the Packback Team:

If you have any questions or concerns about Packback throughout the semester, please read their FAQ at help.packback.co. If you need more help, contact their customer support team directly at help@packback.co . Copy me on any help request you send, so I can learn along with you.

For a brief introduction to Packback Questions and why we are using it in class, watch this video: vimeo.com/packback/Welcome-to-Packback-Questions

The Fine Print

Writing and Learning Support

The Academic Learning Centre (ALC) offers services that may be helpful to you throughout your academic program. Through the ALC, you can meet with a learning specialist to discuss concerns such as time management, learning strategies, and test-taking strategies. The ALC also offers peer supported study groups called Supplemental Instruction (SI) for certain courses that students have typically found difficult. In these study groups, students have opportunities to ask questions, compare notes, discuss content, solve practice problems, and develop new study strategies in a group-learning format.

You can also meet one-to-one with a writing tutor who can give you feedback at any stage of the writing process, whether you are just beginning to work on a written assignment or already have a draft. If you are interested in meeting with a writing tutor, reserve your appointment two to three days in advance of the time you would like to meet. Also, plan to meet with a writing tutor a few days before your paper is due so that you have time to work with the tutor's feedback.

These Academic Learning Centre services are free for U of M students. For more information, please visit the Academic Learning Centre website at: http://umanitoba.ca/student/academiclearning/

You can also contact the Academic Learning Centre by calling 204-480-1481 or by visiting 201 Tier Building.

University of Manitoba Libraries (UML)

As the primary contact for all research needs, your liaison librarian can play a vital role when completing academic papers and assignments. Liaisons can answer questions about managing citations, or locating appropriate resources, and will address any other concerns you may have, regarding the research process. Liaisons can be contacted by email or phone, and are also available to meet with you in-person. A complete list of liaison librarians can be found by subject: http://bit.ly/WcEbA1 or name: http://bit.ly/1tJ0bB4. In addition, general library assistance is provided in person at 19 University Libraries, located on both the Fort Garry and Bannatyne campuses, as well as in many Winnipeg hospitals. For a listing of all libraries, please consult the following: http://bit.ly/1sXe6RA. When working remotely, students can also receive help online, via the Ask-a-Librarian chat found on the Libraries' homepage:www.umanitoba.ca/libraries.

For 24/7 mental health support, contact the Mobile Crisis Service at 204- 940-1781.

Student Counselling Centre
Contact SCC if you are concerned about any aspect of your mental health, including anxiety, stress, or depression, or for help with relationships or other life concerns. SCC offers crisis services as well as individual, couple, and group counselling. *Student Counselling Centre:* http://umanitoba.ca/student/counselling/index.html
474 University Centre or S207 Medical Services (204) 474-

8592

Student Support Case Management
Contact the Student Support Case Management team if you are concerned about yourself or another student and don't know where to turn. SSCM helps connect students with on and off campus resources, provides safety planning, and offers other supports, including consultation, educational workshops, and referral to the STATIS threat assessment team.

Student Support Intake Assistant http://umanitoba.ca/student/case-manager/index.html
520 University Centre
(204) 474-7423

University Health Service
Contact UHS for any medical concerns, including mental health problems. UHS offers a full range of medical services to students, including psychiatric consultation.
University Health Service http://umanitoba.ca/student/health/ 104
University Centre, Fort Garry Campus
(204) 474-8411 (Business hours or after hours/urgent calls)

Health and Wellness

Contact our Health and Wellness Educator if you are interested in information on a broad range of health topics, including physical and mental health concerns, alcohol and substance use harms, and sexual assault.

Health and Wellness Educator http://umanitoba.ca/student/health-wellness/welcome.html
Katie.Kutryk@umanitoba.ca 469
University Centre
(204) 295-9032

For comprehensive information about the full range of health and wellness resources available on campus, visit the Live Well @ UofM site: http://umanitoba.ca/student/livewell/index.html

A notice with respect to copyright:

All students are required to respect copyright as per Canada's *Copyright Act*. Staff and students play a key role in the University's copyright compliance as we balance user rights for educational purposes with the rights of content creators from around the world. The Copyright Office provides copyright resources and support for all members of the University of Manitoba community. Visit http://umanitoba.ca/copyright for more information.

Your rights and responsibilities

As a student of the University of Manitoba you have rights and responsibilities. It is important for you to know what you can expect from the University as a student and to understand what the University expects from you. Become familiar with the policies and procedures of the University and the regulations that are specific to your faculty, college or school.

The Academic Calendar http://umanitoba.ca/student/records/academiccalendar.html is one important source of information. View the sections *University Policies and Procedures* and *General Academic Regulations*.

While all of the information contained in these two sections is important, the following information is highlighted.

- If you have questions about your grades, talk to your instructor. There is a process for term work and final **grade appeals**. Note that you have the right to access your final examination scripts. See the Registrar's Office website for more information including appeal deadline dates and the appeal form

    http://umanitoba.ca/registrar/

- You are expected to view the General Academic Regulation section within the Academic Calendar and specifically read the **Academic Integrity** regulation. Consult the course syllabus or ask your instructor for additional information about demonstrating academic integrity in your academic work. Visit the Academic Integrity Site for tools and support http://umanitoba.ca/academicintegrity/ View the **Student Academic Misconduct** procedure for more information.

- The University is committed to a respectful work and learning environment. You have the right to be treated with respect and you are expected conduct yourself in an appropriate respectful manner. Policies governing behavior include the:

Respectful Work and Learning Environment

    http://umanitoba.ca/admin/governance/governing_documents/community/23 0.html

    Student Discipline
    http://umanitoba.ca/admin/governance/governing_documents/students/student_discipline.html and,

    Violent or Threatening Behaviour
    http://umanitoba.ca/admin/governance/governing_documents/community/66 9.html

- If you experience **Sexual Assault** or know a member of the University community who has, it is important to know there is a policy that provides information about the supports available to those who disclose and outlines a process for reporting. The **Sexual Assault** policy may be found at: http://umanitoba.ca/admin/governance/governing_documents/community/23 0.html More information and resources can be found by reviewing the Sexual Assault site http://umanitoba.ca/student/sexual-assault/

- For information about rights and responsibilities regarding **Intellectual Property** view the policy http://umanitoba.ca/admin/governance/media/Intellectual_Property_Policy_-

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For information on regulations that are specific to your academic program, read the section in the Academic Calendar and on the respective faculty/college/school web site http://umanitoba.ca/faculties/

Contact an **Academic Advisor** within our faculty/college or school for questions about your academic program and regulations http://umanitoba.ca/academic- advisors/

Student Advocacy

Contact Student Advocacy if you want to know more about your rights and responsibilities as a student, have questions about policies and procedures, and/or want support in dealing with academic or discipline concerns. http://umanitoba.ca/student/advocacy/
520 University Centre
204 474 7423
student_advocacy@umanitoba.ca