

**Business C710
Health Economics and Evaluation
Winter 2021 Course Outline**

**Health Policy and Management Area
DeGroote School of Business
McMaster University**

COURSE OBJECTIVE

DeGroote’s MBA specialization in Health Services Management (HSM) is the only one of its kind in Canada. Industry leaders and alumni agree that one of the most valuable courses offered has been the health economics/evaluation course that has appeared in the calendar under various names over the years. This course will examine the application of economic principles to policy-relevant questions in the area of health and healthcare.

INSTRUCTOR AND CONTACT INFORMATION

Tues 11:30am – 2:20pm	Administrative Assistant RJC Kerry Donovan	Administrative Assistant DSB Jane-Ann Best
Instructor Christopher J. Longo, PhD. cjlongo@mcmaster.ca Office: RJC 422	donovk@mcmaster.ca	bestj1@mcmaster.ca
Office Hours: Tues 2:30 – 4:00pm Tel: (905) 525-9140 x23896	Office: RJC #230 Office Hours: 08:30 – 4:30 Tel: (905) 525-9140 x20514	Office; DSB #203 Office Hours: 8:30 – 4:30 Tel: (905) 525-9140 x24436
Class Location: RJC/On-line		

Course Website: <http://www.degroote.mcmaster.ca>

COURSE ELEMENTS

Credit Value: 3	Leadership: Yes	IT skills: No	Global view: Yes
Avenue: Yes	Ethics: No	Numeracy: Yes	Written skills: Yes
Participation: Yes	Innovation: Yes	Group work: Yes	Oral skills: Yes

COURSE DESCRIPTION

This course will be taught using lectures, guest speakers, discussions, research projects and presentations and a minimum of one lecture via Avenue to Learn (hybrid course design). Lectures will not attempt to cover all the possible materials, but will provide a starting place for class discussion. Some of the class time will be used to engage in activities designed to illustrate certain topics and issues and to provide a basis for their discussion.

LEARNING OUTCOMES

This course will examine the application of economic principles to policy-relevant questions in the areas of health and healthcare. Topics may include but not be limited to applied health economics, demand and supply of healthcare and insurance, economic evaluation of health technologies and programs (pharmaceuticals, devices, etc), cost-effectiveness, cost-utility and cost-benefit analyses, and means by which to improve value-for-money in the health sector.

REQUIRED COURSE MATERIALS AND READINGS

Avenue registration for course content, readings and case materials	
• http://avenue.mcmaster.ca	\$ FREE
M. Drummond, et al, Methods for the Economic Evaluation of Health Care Programmes, 4 th edition”, Oxford Medical Publications (2015)	\$ 76.00
• purchase a copy at the bookstore	
Custom Courseware	Approx
• purchase a copy at the bookstore (e-book or paper copy)	\$14.00

OPTIONAL COURSE MATERIALS AND READINGS

None

EVALUATION

Learning in this course results to a large degree from in-class discussion and participation of comprehensive economic evaluation lectures and cases as well as out-of-class analysis. The balance of the learning results from related readings, and from researching your presentations, and projects. Work will be evaluated on both an individual and group basis. In group work members will share the same grade adjusted by peer evaluation. Your final grade will be calculated as follows:

Components and Weights

Brief critique	Based on recent health economics literature	15%
Discussions (2)	Each discussion is worth 7.5%	15%
Class participation	Lecture/Discussion time	15%
Term Project	Presentation (via Zoom)	15%
Term Project	Report	40%
Total		100%

Conversion

At the end of the course your overall percentage grade will be converted to your letter grade in accordance with the following conversion scheme.

Grade (Points)	Percentages
A+ (12)	90-100
A (11)	85-89
A- (10)	80-84
B+ (9)	75-79
B (8)	70-74
B- (7)	60-69
F (0)	00-59

Health Research Methodology/E Health/ Global Health Graduate Students

At the end of the course HRM students' overall percentage grade will be converted to a letter grade in accordance with the following conversion scheme.

Grade	Percentages
A+	90-100
A	85-89
A-	80-84
B+	77-79
B	73-76
B-	70-72
F	Failure, inadequate work

Communication and Feedback

Students that are uncomfortable in directly approaching an instructor regarding a course concern may send a confidential and anonymous email to the respective Area Chair or Associate Dean:

<http://www.degroote.mcmaster.ca/curr/emailchairs.aspx>

Students who wish to correspond with instructors or TAs directly via email must send messages that originate from their official McMaster University email account. This protects the confidentiality and sensitivity of information as well as confirms the identity of the student. Emails regarding course issues should NOT be sent to the Administrative Assistant.

Instructors are encouraged to conduct an informal course review with students by Week #4 to allow time for modifications in curriculum delivery. Instructors should provide evaluation feedback for at least 10% of the final grade to students prior to Week #8 in the term.

Mid term critique

This critique, is worth **15%** of your final grade and will be marked individually (if class size exceeds 32 students, students can opt to do the critique in pairs). The critique will be due on **Friday February 26th**. A full description of expected format will be provided on or before the second week of classes.

Discussion questions

The term will have two discussion questions, the first due on **March 9th**, and the second due on **March 23rd**. Each discussion is worth 7.5% for a total of **15%**.

Team Project – Presentation

There is a team presentation in this course that accounts for **15%** of your final grade. The presentation should cover the material included in your report, but be limited to 30-45 minutes with an additional 15 minutes for questions (some variation in length of presentation based on class size may occur).

Team Project – Written report

There is a major team report in this course that accounts for **40%** of your grade. This report should be based on an incremental analysis of a new technology or program with respect to existing treatments or practices. The scope of this report should be discussed with the instructor before proceeding, and must have a well defined and measurable outcome measure. You will be responsible for:

- Identifying a health economics issue with alternative interventions
- Conducting **an economic evaluation** of competing interventions using one of the comparative techniques identified in the *Drummond* text but limited to one of:
 - Cost effectiveness analysis
 - Cost-utility analysis
 - Cost-benefit analysis
- Making appropriate recommendations based on this analysis.

Students should attempt to form groups early in the term and are required to provide an outline of their project by **March 2nd**. The instructor will review the project for content and feasibility for the course, and provide appropriate feedback and guidance.

Your written research project is due the last day of classes for C710.

Participation

Zoom virtual classes will provide the opportunity to discuss class materials and will be used to help give credit for your participation (**15%** of grade). You must identify yourself when addressing the class with your **full first and last name** clearly stated you for every class.

Two in-class case studies applying health economic principles and requiring some rudimentary calculations will be handed out during the term (via A2L). They will be discussed in class and your final results will be handed in at the end of specified classes, and will constitute 20% of your participation mark.

Instructors will feel free to **cold-call** on anyone at any time. Hence, it is imperative that you prepare for each and every class and reading. In general, contributions are evaluated in an ascending order from physically but not mentally present, to good chip shots, to quite substantial comments, to case cracking contributions. Debate and challenge are important activities that help in the learning process and the willingness of individuals to engage in such activities with their classmates is appreciated. However, using **air-time** involves an obligation to actually contribute. None of us has time for recitation of case facts, bland summaries of prior discussion, and so on, that are devoid of implications. Before you speak, always answer the question **so-what?** Participation will **NOT** be graded by counting each contribution a student makes. Participation will be graded by examining the quality of contributions in each class.

COMMUNICATION AND FEEDBACK

Students that are uncomfortable in directly approaching an instructor regarding a course concern may send a confidential and anonymous email to the respective Area Chair or Associate Dean:

<http://mbastudent.degroote.mcmaster.ca/contact/anonymous/>

Students who wish to correspond with instructors or TAs directly via email must send messages that originate from their official McMaster University email account. This protects the confidentiality and sensitivity of information as well as confirms the identity of the student. Emails regarding course issues should NOT be sent to the Administrative Assistant.

Instructors are encouraged to conduct an informal course review with students by Week #4 to allow time for modifications in curriculum delivery. Instructors should provide evaluation feedback for at least 10% of the final grade to students prior to Week #8 in the term.

ACADEMIC DISHONESTY

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at:

www.mcmaster.ca/academicintegrity

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations

AUTHENTICITY/PLAGIARISM DETECTION

Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. A2L, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software.

All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, other software, etc.). For more details about McMaster's use of Turnitin.com please go to www.mcmaster.ca/academicintegrity.

COURSES WITH AN ON-LINE ELEMENT

Some courses may use on-line elements (e.g. e-mail, Avenue to Learn (A2L), LearnLink, web pages, capa, Moodle, ThinkingCap, etc.). Students should be aware that, when they access the electronic components of a course using these elements, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course.

The available information is dependent on the technology used. Continuation in a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure, please discuss this with the course instructor.

ON-LINE PROCTORING

Some courses may use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

CONDUCT EXPECTATIONS

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the [*Code of Student Rights & Responsibilities*](#) (the “Code”). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online.**

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students’ access to these platforms.

MISSED ACADEMIC WORK

Missed Mid-Term Examinations / Tests / Class Participation

Where students miss a regularly scheduled mid-term or class participation for legitimate reasons as determined by the Student Experience – Academic (MBA) office, the weight for that test/participation will be distributed across other evaluative components of the course at the discretion of the instructor. Documentation explaining such an absence must be provided to the Student Experience – Academic (MBA) office within five (5) working days upon returning to school.

To document absences for health related reasons, please provide to Student Experience – Academic (MBA) office the Petition for Relief for MBA Missed Term Work and the McMaster University Student Health Certificate which can be found on the DeGroote website at <http://mbastudent.degroote.mcmaster.ca/forms-and-applications/>. Please do not use the online McMaster Student Absence Form as this is for Undergraduate students only. University policy states that a student may submit a maximum of three (3) medical certificates per year after which the student must meet with the Director of the program.

To document absences for reasons other than health related, please provide Student Experience – Academic (MBA) office the Petition for Relief for MBA Missed Term Work and documentation supporting the reason for the absence.

Students unable to write a mid-term at the posted exam time due to the following reasons: religious; work-related (for part-time students only); representing university at an academic or varsity athletic event; conflicts between two overlapping scheduled mid-term exams; or other extenuating circumstances, have the option of applying for special exam arrangements. Such

requests must be made to the Student Experience – Academic (MBA) office at least ten (10) working days before the scheduled exam along with acceptable documentation. Instructors cannot themselves allow students to unofficially write make-up exams/tests. Adjudication of the request must be handled by Student Experience – Academic (MBA).

If a mid-term exam is missed without a valid reason, students will receive a grade of zero (0) for that component.

Missed Final Examinations

A student who misses a final examination without good reason will receive a mark of 0 on the examination.

All applications for deferred and special examination arrangements must be made to the Student Experience – Academic (MBA) office. Failure to meet the stated deadlines may result in the denial of these arrangements. Deferred examination privileges, if granted, must be satisfied during the examination period at the end of the following term. There will be one common sitting for all deferred exams.

Failure to write an approved deferred examination at the pre-scheduled time will result in a failure for that examination, except in the case of exceptional circumstances where documentation has been provided and approved. Upon approval, no credit will be given for the course, and the notation N.C. (no credit) will be placed on the student's transcript. Students receiving no credit for a required course must repeat the course. Optional or elective courses for which no credit is given may be repeated or replaced with another course of equal credit value.

Requests for a second deferral or rescheduling of a deferred examination will not be considered.

Any student who is unable to write a final examination because of illness is required to submit the Application for Deferred MBA Final Examination and a statement from a doctor certifying illness on the date of the examination. The Application for Deferred MBA Final Examination and the McMaster University Student Health Certificate can be found on the DeGroot website at <http://mbastudent.degrootemcmaster.ca/forms-and-applications/> Please do not use the online McMaster Student Absence Form as this is for Undergraduate students only. Students who write examinations while ill will not be given special consideration after the fact.

In such cases, the request for a deferred examination privilege must be made in writing to the Student Experience – Academic (MBA) office within five business days of the missed examination.

Special examination arrangements may be made for students unable to write at the posted exam time due to compelling reasons (for example religious, or for part-time students only, work-related reasons):

- Students who have religious obligations which make it impossible to write examinations at the times posted are required to produce a letter from their religious leader stating that they are unable to be present owing to a religious obligation.
- Part-time students who have business commitments which make it impossible to write examinations at the times posted are required to produce a letter on company letterhead from the student's immediate supervisor stating that they are unable to be present owing to a specific job commitment.

In such cases, applications must be made in writing to the Student Experience – Academic (MBA) office at least ten business days before the scheduled examination date and acceptable documentation must be supplied.

If a student is representing the University at an academic or athletic event and is available at an overlapping scheduled time of the test/examination, the student may write the test/examination at an approved location with an approved invigilator, as determined by the Student Experience – Academic (MBA) office.

In such cases, the request for a deferred examination privilege must be made in writing to the Student Experience – Academic (MBA) office within ten business days of the end of the examination period.

Note: A fee of \$50 will be charged for a deferred exam written on campus and a fee of \$100 for deferred exams written elsewhere. In cases where the student's standing is in doubt, the Graduate Admissions and Study Committee may require that the student with one or more deferred examination privileges refrain from re-registering until the examination(s) have been cleared.

ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES

Student Accessibility Services (SAS) offers various support services for students with disabilities. Students are required to inform SAS of accommodation needs for course work at the outset of term. Students must forward a copy of such SAS accommodation to the instructor normally, within the first three (3) weeks of classes by setting up an appointment with the instructor. If a student with a disability chooses NOT to take advantage of an SAS accommodation and chooses to sit for a regular exam, a petition for relief may not be filed after the examination is complete. The SAS website is: <http://sas.mcmaster.ca>

RELIGIOUS, INDIGENOUS OR SPIRITUAL OBSERVANCES (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the [RISO](#) policy. Students should submit their request to their Faculty Office ***normally within 10 working days*** of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

COPYRIGHT AND RECORDING

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, **including lectures** by University instructors.

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

POTENTIAL MODIFICATION TO THE COURSE

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

WEBSITES OF INTEREST

Canadian Institute for Health Information – National and provincial data on hospital, physician and other healthcare professions and services. Information on this website is mostly based on administrative data, including some data on expenditures and costing.

CIHI website: http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=home_e

Canadian Agency for Drugs and Technologies in Health (CADTH)- Funded by the provincial ministers of health (and formerly known as CCOHTA) this organization undertakes clinical and economic evaluations of new technologies. They are also responsible for the Common Drug Review that advises the provinces on adoption (or not) of new technologies.

CADTH website: <http://www.cadth.ca/index.php/en/home>

National Institute for Clinical Excellence (NICE) – NICE is the independent organisation responsible for providing national guidance on the promotion of good health and the prevention and treatment of ill health. On 1 April 2005 NICE joined with the Health Development Agency to become the new National Institute for Health and Clinical Excellence (acronym still NICE).

NICE website: <http://www.nice.org.uk/page.aspx?o=home>

Patient Cost Estimator (CIHI) – Provides aggregate data on costing based on Case Mix Groups (CMGs). It can be sorted by province or nationally. Website:

<https://www.cihi.ca/en/spending-and-health-workforce/spending/patient-cost-estimator>

Institute for Clinical Evaluative Sciences (ICES) – ICES is an Ontario Ministry of Health funded research group that “providing unique scientific insights to help policymakers, managers, planners, practitioners and other researchers shape the future direction of the Ontario health care system”

ICES website: <http://www.ices.on.ca/webpage.cfm>

COURSE SCHEDULE

C710
Health Economics and Evaluation
Winter 2021 Course Schedule

WEEK	DATE	ASSIGNMENT/LECTURE
1	Tues Jan 12	Lecture: Introduction, course outline, quick review of the Canadian health care system, and intro to economic principles Readings: Courseware Optional web reading: http://www.hc-sc.gc.ca/hcs-sss/pubs/system-regime/2005-hcs-sss/index-eng.php
2	Tues Jan 19	Lecture: Markets and health care markets. Health Insurance and health insurance markets, and government intervention in health care insurance Readings: Courseware
3	Tues Jan 26	Lecture: Demand for health and utility maximization. Technology assessment and basics of economic evaluation Readings: Drummond 4 th ed. Ch. 2
4	Tues Feb 2	Lecture: Cost minimization, cost consequence, cost effectiveness, and cost benefit analyses, with case studies Reading: Drummond 4 th Ed. Ch 4 & 6 <i>Due: Critique article identified</i>
5	Tues Feb 9	Lecture: Quality of life and cost utility analysis, with case studies Reading: Drummond 4 th Ed. Ch. 5 and courseware
	Tues Feb 16	READING WEEK
6	Tues Feb 23	<i>Present case study #1, Clotbuster, Due March 2nd</i> Lecture: Costing methodologies and challenges, & discussion of trials versus models Reading: Drummond 4 th ed. Ch. 7 & 8 <i>Critique article due Friday 26th via A2L at 4:30pm.</i>

7	Tues Mar 2	<i>Project groups formed and project outline due today</i> Lecture: Decision analysis and modeling Reading: Drummond 4 th Ed. Ch. 9 & Courseware
8	Tues Mar 9	<i>Discussion #1 via A2L due today</i> Lecture: Methods for dealing with uncertainty Reading: Drummond 4 th Ed. Ch. 11 & Courseware <i>Hand in via A2L 1st case (Pass/Fail) & Discuss 2nd Case study</i>
9	Tues Mar 16	Project work time (Schedule meeting with Professor) <i>Hand in via A2L Case study #2- Clotbuster (Pass/fail)</i>
10	Tues Mar 23	<i>Discussion #2 - Case study via A2L due today</i> Lecture: Pulling it all together, an application of economic evaluation in the pharmaceutical/devices industry as a case study Reading: Courseware
11	Tues Mar 30	Project work time (Schedule meeting with Professor)
12	Tues Apr 6	<i>Course Evaluation</i> Presentations
13	Tues Apr 13	Presentations, and hand in reports