

**HM731 – Economic Evaluation in Health Care  
Fall 2020 Course Outline  
Master of Health Management Program  
McMaster University**

**COURSE OBJECTIVE / PROFILE**

This course will examine the fundamental theory and application of economic principles for the purpose of developing and/or evaluating an economic evaluation of a health technology or program. These analyses will address/inform policy-relevant questions in the area of health and healthcare. The intent is create a course with an emphasis on the practical application and the benefit of these analyses for healthcare managers.

**COURSE DESCRIPTION**

The goal of this course is to 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.

**LEARNING OUTCOMES / OBJECTIVES**

Upon completion of this course students will be able to:

- describe the economic principles that underpin an economic analysis;
- demonstrate an understanding of economic analysis methods;
- have the ability to critique a published economic analysis manuscript; and
- describe and apply these methods to policy decisions regarding the funding of technologies or programs in a health care setting.

**COURSE MATERIALS**

Courseware (electronic)

\$18 approximately

Textbook: M. Drummond, et al, Methods for the Economic Evaluation of Health Care

Programmes, 4<sup>th</sup> edition, 2015, Oxford Medical Publications

\$76 new/\$58 used/\$55  
Amazon

This course is delivered primarily in an online format using Avenue to Learn (A2L or Avenue) as the principal delivery system. Topics are explored through a review of documents, course assignments, case studies and online discussions. Students are expected to be adult learners who will independently read course content posted on the A2L course website, analyze information, and share their new knowledge and understanding with their classmates so that they learn from each other as well as from the instructor. Students will use course content posted on A2L, readings and texts as resources for learning. Instead of face-to-face small group discussions, students will interact online with other students and the course instructor. Typically, discussions will occur asynchronously (not in real time) as this enables students from different time zones to participate more easily and to organize their learning activities around work, family and personal demands. Live chat rooms and video links may be used when needed by students. The instructor and students will also maintain contact as necessary by email and/or Skype.

## TECHNICAL REQUIREMENTS

Students require access to a computer that meets the MHM program technical requirements as well as access to the Internet on a regular basis. Learners should also be comfortable using a keyboard and must have an active McMaster email account and web browser. The course will be delivered primarily through the A2L system at McMaster.

## EVALUATION

Learning in this course comes from readings, lectures, and online discussion and participation, preparation of assignments, reflection and analysis. All work will be evaluated on an individual basis.

### ***Components and Weights***

Online Discussion Questions	Participation (students are expected to share ideas and experiences related to the topics presented during online discussions). Specific expectations for online discussion questions are noted below. See the A2L course site for details on the timing of postings. (7% for each of best 7 of 8 discussion questions)	49%
Assignment #1	Critical appraisal of published literature	15%
Assignment #2a	Final report outline (methodological)	7%
Assignment #2b	Economic evaluation Report	30%

**Percentage Letter:**

<b>90-100</b>	<b>A+</b>	<b>77-79</b>	<b>B+</b>
<b>85-89</b>	<b>A</b>	<b>73-76</b>	<b>B</b>
<b>80-84</b>	<b>A-</b>	<b>70-72</b>	<b>B-</b>
		<b>0-69</b>	<b>F</b>

**COURSE CONTENT**

Course content is divided into the following five learning modules.

**Module 1: Economic principles in health care, and health care markets**

- Understand scarcity and opportunity costs
- Understand why economic tools are useful in health care
- How and why markets and health care markets differ

**Module 2: Insurance, government intervention, and health maximization**

- Insurance behavior in health
- The impact of adverse selection and moral hazard
- Government intervention in health care
- Health Maximization

**Module 3: Basics of economic evaluation and costing methodologies**

- Basic components of an economic evaluation
- Understand perspective, time horizon and discounting
- Understand incremental costs and benefits
- Understand methodologies behind costing health care

**Module 4: Cost effectiveness, cost utility, and cost benefit analyses**

- Details of undertaking an incremental cost effectiveness analysis
- Brief background on utility theory
- Details of undertaking a cost-utility analysis
- Details of undertaking a cost-benefit analysis

**Module 5: Decision analytic modeling, uncertainty and overall summary**

- The role of ideas (values, evidence, knowledge, beliefs).

- The role of interests (structural interests - dominant, challenging, repressed).
- Concentrated versus diffuse costs/benefits (resource and incentive effects).

A more detailed week-by-week description of topics, activities, and required readings will be posted online (under the content section of the A2L course site) prior to the first week of the course. Students should become familiar with the A2L site, obtain any required/suggested textbooks, and complete the first week's required readings as early as possible.

### ***Participation & Online Discussion Questions –***

Students are expected to share ideas and experiences related to the topics presented during online discussions. Students are expected to post at least one main response to the weekly question(s) and to participate in the overall discussion by commenting on other students' responses (at least 2 times per week; i.e. a total of at least 3 posts per week). Postings should be reflective, concise and respectful. Make sure you are adding value and not simply repeating what others have already said (refer to the Online Discussion Grading Scale posted in the content section of the Avenue site AND under the Syllabus and Assignments tab of content). The course instructor(s) and teaching assistant(s) will limit their participation so as not to overly influence the direction of the discussion. To further facilitate discussion, students in each course section may be further divided into groups (depending on class size). If groups are formed, information about which group students have been assigned to will be posted on the A2L site.

There is also a general discussion area on the A2L site where students may interact with each other (instructors and teaching assistants will not be monitoring this area routinely so if you have an important question please phone or email directly).

### ***Assignment #1 –***

The purpose of this assignment is to allow students to evaluate a published economic paper. A list of possible papers is included on A2L, but other papers can be chosen by students assuming they have received prior approval of the instructor.

Students will submit a 3-5 page paper that includes the following:

- Defining the research question;
- identification of the type of analysis, the time frame, the perspective
- An evaluation of the quality of the paper
- Suggestions on how to improve the paper

This assignment will be submitted via ATL, the due date will be specified in the detailed schedule.

## **Assignment #2 –**

The final course assignment consists of student groups designing and executing an economic evaluation (subject to final approval from the instructor) in groups of 3-4 . Students are required to submit an outline (Assignment #2a -1 page maximum) describing the proposed economic evaluation mid-term. The outline is intended to make sure students are on the right-track. The outline should:

- describe the research question;
- identify the analysis methods of choice;
- determine what the treatment/program will be compared to.
- describe the perspective, time horizon, and discounting used for the analysis;
- identify which data sources you will use

The final economic analysis paper (Assignment #2b) must conform to the following:

- submitted online (A2L Dropbox) in Microsoft Word format;
- 1 inch margins and at least an 11 point font;
- double spaced 15-25 pages, not including appendices or references;
- only include appendices that are relevant to your analysis (there are no bonus marks for volume); and
- references must be in APA format (see below).

Details and examples of possible economic evaluation topics will be posted on the A2L site. This assignment will be submitted via A2L, the due date will be specified in the detailed schedule.

***NOTE: The instructor will use 2-3 pre-designed topics with limited references (as a starting point) should students prefer this approach to creating their own analysis from scratch. If they choose another topic it must be approved by the instructor.***

## **REFERENCING**

All assignments submitted should use formal APA (American Psychological Association) referencing format. Links to summary APA style guides can be found on both the HM700 Avenue site and the Health Policy & Management Avenue site. Referencing within online posts may be less formal (students need to provide sufficient information so that the material referenced may be easily found).

## **PENALTY FOR LATE SUBMISSION**

Deadlines for assignments are set. All work must be submitted to the Avenue to Learn Dropbox on the due date and time as stated in the Course Outline. Do not submit work by email. Late assignments will be penalized 10% for every 24 hours, or part thereof, they are submitted past their due date and time. If you anticipate being unable to complete an assignment on the due date, please contact your instructor prior to the due date. Requests for extensions will not be considered within 48 hours of the deadline except under extenuating circumstances.

## **ACADEMIC DISHONESTY**

It is the student's responsibility to understand what constitutes academic dishonesty. Please refer to the University Senate Academic Integrity Policy at the following URL (it is also posted on the course's main A2L page):

<http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf>

This policy describes the responsibilities, procedures, and guidelines for students and faculty should a case of academic dishonesty arise. Academic dishonesty is defined as to knowingly act or fail to act in a way that results, or could result, in unearned academic credit or advantage. Please refer to the policy for a list of examples. The policy also provides faculty with procedures to follow in cases of academic dishonesty as well as general guidelines for penalties. All work that students submit must be their own work (original) and include proper citations when work is copied or paraphrased. A web-based service (Turnitin.com) to reveal plagiarism will be used. Students will be expected to submit their work electronically to the Avenue to Learn Dropbox. Students who do not wish to have their work assessed through Turnitin.com must advise their instructor in writing in advance of the due date/time. These students must still submit their work to the Avenue to Learn Dropbox along with all rough drafts as an appendix. No penalty will be assigned to a student who does not wish to have their work assessed through Turnitin.com. However, all submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, etc.).

For further information related to the academic integrity policy or the use of Turnitin.com, please refer to the Office of Academic Integrity at:

<http://www.mcmaster.ca/academicintegrity>

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<http://www.copyright.mcmaster.ca>

## STUDENTS WITH DISABILITIES

Students with disabilities are required to inform Student Accessibility Services (SAS) of accommodation needs for examinations on or before the last date for withdrawal from a course without failure (please refer to official university sessional dates). Students must forward a copy of such accommodation to the instructor immediately upon receipt. If a student with a disability chooses NOT to take advantage of an 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/>

## POTENTIAL MODIFICATIONS 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 frequently during the term.