

Department of Epidemiology and Biostatistics

Epidemiology 4600A

Introduction to Health Economics

Time: Wednesday 2:30 p.m. - 4:30 p.m.

Friday 10:30 a.m. - 11:30 a.m.

Location: B&GS 1056,
Biological & Geological Sciences Bldg.

Lab Time: N/A

Lab Location: N/A

Instructor: Sisira Sarma

Office Hours: Friday 2:30 p.m. - 4:30 p.m.

E-mail: ssarma2@uwo.ca

Phone Extension: 87583

Teaching Assistant:

E-mail:

Office Hours:

Course Information

Prerequisites: Undergraduate students in the Department of Epidemiology & Biostatistics.

Unless you have either the requisites for this course or written special permission to enroll in it, you may be removed from this course and it will be deleted from your record. Undergraduate students may seek permission from the Undergraduate Chair. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Course Syllabus

This course is designed for undergraduate students in the Department of Epidemiology & Biostatistics who have no prior background in Health Economics. The course objectives are to provide the student with an understanding of the economics concepts and tools relevant to evaluate health programmes, policies and interventions in the field of health & medicine. The topics to be covered are: microeconomic tools for health economics, production of health, demand for healthcare, demand for health insurance, market failure in the health sector, and introduction to economic evaluation techniques (cost-minimization analysis, cost-effectiveness analysis, cost-utility analysis, and cost-benefit analysis).

Learning Outcomes:

By the end of this term, students should be able to understand:

- the basic economics principles applied to health economics;
- efficiency and equity concepts and related tools;
- the logic behind the health economics concepts and methods applied to evaluate health interventions;

- the models of health capital and demand for health insurance; and
- the differences among cost-minimization, cost-effectiveness, cost-benefit, and cost-utility analyses and know the strengths and weaknesses of each technique.

Course Materials

Required Text:

Hurly, JE. Health Economics, 1st Edition. Mc-Graw-Hill Ryerson, 2010. Chapters 1-10.

Other Useful Texts:

Drummond MF, Sculpher MJ, Torrance GW, O'Brien, BJ, Stoddart GL. Methods for the Evaluation of Health Care Programmes, 4th edition. Oxford University Press: New York, 2015.

Folland S, Goodman AC, Stano M. The Economics of Health and Health Care, 7th edition. Pearson Prentice Hall: New Jersey, 2012.

I. Microeconomic Tools

Scarcity, opportunity cost, demand, supply, market equilibrium, elasticity, production, cost, competitive markets, efficiency, equity

Readings: Hurley Chapters 2-3

II. Introduction to Health Economics

Production of health, demand for healthcare, moral hazard, asymmetric information, demand for health insurance, public versus private health insurance, market failure in the health sector

Rattinger GB, Jain R, Ju J, Mullins CD. Principles of economics crucial to pharmacy students' understanding of the prescription drug market. *American Journal of Pharmaceutical Education* 2008, 72(3):61.

Available at:

<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=2508734&blobtype=pdf>

Kiil, A, Houlberg, K. How does copayment for health care services affect demand, health and redistribution? A systematic review of the empirical evidence from 1990 to 2011. *European Journal of Health Economics* (2014) 15(8):813 – 828.

Camejo, RF, McGrath, C, Miraldo, M, Rutten, F. Distribution of health-related social surplus in pharmaceuticals: an estimation of consumer and producer surplus in the management of high blood lipids and COPD. *European Journal of Health Economics* (2014) 15(4):439 – 445.

Nixon, J., Ulmann, P. The relationship between health care expenditure and health outcomes. Evidence and caveats for a causal link. *European Journal of Health Economics* (2006) 7(1):7 –18.

WHO publication: The Economics of Social Determinants of Health and Health Inequalities. Available at: <http://apps.who.int/iris/handle/10665/84213>

Epstein D, Jiménez-Rubio D, Smith PC, Suhrcke M. **Social determinants of health: an economic perspective.** *Health Economics* 2009, 18(5): 495-502.

O'Donnell, Owen; van Doorslaer, Eddy; Wagstaff, Adam; Lindelow, Magnus. 2008. Analyzing Health Equity Using Household Survey Data: A Guide to Techniques and Their Implementation. Washington, DC: World Bank.

<https://openknowledge.worldbank.org/bitstream/handle/10986/6896/424800ISBN9780110FFICIAL0USE0ONLY10.pdf?sequence=1&isAllowed=y>

The Humble Economist by Tony Culyer. Available at:

<https://www.york.ac.uk/che/publications/books/the-humble-economist/>

III. Introduction to Health Economic Evaluation Cost-effectiveness, Cost-utility and Cost-benefit Analyses Readings: Hurley Chapter 4; Drummond *et al.*

Guidelines for the economic evaluation of health technologies: Canada [Internet]. 4th ed. Ottawa: CADTH; 2017.

https://cadth.ca/sites/default/files/pdf/guidelines_for_the_economic_evaluation_of_health_technologies_canada_4th_ed.pdf

Husereau *et al.* 2013. Consolidated Health Economic Evaluation Reporting Standards (CHEERS) statement. Available at: <http://www.biomedcentral.com/1741-7015/11/80>

Meltzer MI. Introduction to health economics for physicians. *Lancet* 2001, 358(9286): 993-998.

Kernick DP. Introduction to health economics for the medical practitioner. *Postgraduate Medical Journal* 2003, 79(929): 147-150.

Provenzale D. An overview of economic analysis for the practising gastroenterologist and hepatologist. *European Journal of Gastroenterology and Hepatology* 2004, 16(6): 513-517.

Severens JL, Milne RJ. Discounting health outcomes in economic evaluation: the ongoing debate. *Value in Health* 2004, 7(4): 397-401.

Methods of Evaluation

The assignments and exams will be based on lecture material, assigned readings from the textbooks, journal articles and all other assigned course materials. You are encouraged to work together with your fellow classmates on the assignments, but the answers and interpretation of the results should be your own. The course assessment will be based on class participation and presentation of a research paper, four assignments, one mid-term examination to be held in class and final examination. The course requirements and their weights in the final grade are as follows:

- 10% - Class Participation and Presentation of a published research paper
- 25% - Four Assignments: September 27, October 16, November 13, December 4
- 25% - Mid-term Exam: October 23
- 40% - Final Exam (TBA)

Policy on Accommodation for Medical and Non-Medical Absences

Refer to Western's Policy on Academic Consideration for Student Absences:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Consideration_for_absences.pdf (updated as of September 1, 2019).

All non-medical absences must be approved in advance. In the case of an unexpected absence on compassionate grounds, documentation may be requested. If documentation is required by the instructor for either medical or non-medical academic accommodation, then such documentation must be submitted by the student directly to the appropriate Faculty Dean's office and not to the instructor. It will be the Dean's office that will determine if accommodation is warranted.

Statement on Academic Offences

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<http://www.turnitin.com>).

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.

Support Services

As part of a successful student experience at Western, we encourage students to make their health and wellness a priority. Western provides several on campus health-related services to help you achieve optimum health and engage in healthy living while pursuing your degree. For example, to support physical activity, all students, as part of their registration, receive membership in Western's Campus Recreation Centre. Numerous cultural events are offered throughout the year. Please check out the Faculty of Music web page <http://www.music.uwo.ca/>, and our own McIntosh Gallery

<http://www.mcintoshgallery.ca/>. Information regarding health- and wellness-related services available to students may be found at <http://www.health.uwo.ca/>

Registrarial Services: <http://www.registrar.uwo.ca>

USC Student Support Services: <http://westernusc.ca/services/>

Student Development Centre: <http://www.sdc.uwo.ca/>

Students seeking help regarding mental health concerns are advised to speak to someone they feel comfortable confiding in, such as their faculty supervisor, their program director (graduate or undergraduate chair), or other relevant administrators in their unit.

Students who are in emotional/mental distress should refer to Mental Health@Western <http://www.uwo.ca/uwocom/mentalhealth/> for a complete list of options about how to obtain help.

Department & Faculty Offices

The Epidemiology & Biostatistics main office is located in K201 in the Kresge Building on Main campus.

For undergraduate academic counselling assistance, students will need to speak with the Science & Basic Medical Sciences Academic Counselling Office:
<https://www.uwo.ca/sci/counselling/>.

Technology Requirements

You are responsible for all required course materials and announcements posted to the course's OWL website. Please ensure after the first class that when you log in you are able to access the course site. A copy of the course outline will be available on both OWL and the departmental website.