

**Department of Epidemiology and Biostatistics**

**Epidemiology 9572Q  
Introduction to Health Economics**

**Time:** Wednesday 2:30 p.m. - 4:30 p.m.  
Friday 10:30 a.m. - 11:30 a.m.  
**Location:** PHFM 3015

**Lab Time:** N/A  
**Lab Location:** N/A

**Instructor:** Sisira Sarma

**Office Hours:** Friday 2:30 p.m. - 4:30 p.m.  
(PHFM 3131)  
**E-mail:** [ssarma2@uwo.ca](mailto:ssarma2@uwo.ca)  
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**Teaching Assistant:** Yhesaem Park  
E-mail: [ypark283@uwo.ca](mailto:ypark283@uwo.ca)  
Office Hours: TBD

**Course Information**

**Prerequisites:** Graduate 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. Graduate students may seek permission from the graduate 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 Learning Outcomes:**

This course is designed for graduate students in the Department of Epidemiology & Biostatistics who have no prior background in 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, 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).

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; 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**

**Recommended Text:**

Hurly, JE. Health Economics, 1st Edition. Mc-Graw-Hill Ryerson, 2010. Chapters 1-4.

– **Electronic Version:** An electronic version of the text is available through Campus EBookstore. It can be purchased from this site <http://www.campusebookstore.com/>, by clicking **Shop** and then selecting **e-books**. The ISBN for the e-book is **9780666386199**. Individuals who purchase the e-book will be emailed a redemption code and instructions on how to access the e-book online.

– **Print Version:** Health Economics is also available to purchase through McMaster website. The direct link to the page on the Campus Store website is <https://goo.gl/jtH3tB>. On Avenue-to-Learn you will find a PDF document with steps to find the page using the menus available on the Campus Store's site. The store can ship to most places in Canada within 2-3 days.

Additional course materials will be provided on the course's OWL website.

### **Other Useful Texts:**

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

Folland S, Goodman AC, Stano M. *The Economics of Health and Health Care*, 7<sup>th</sup> 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**

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>

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>

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/>

### **II. 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](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.

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, two assignments and one examination to be held in class. The course requirements and their weights in the final grade are as follows:

- 20% - In-Class Quizzes and Class Participation
- 30% - Two Assignments: October 05, October 21
- 50% - Examination: October 26

## **Western Academic Policies and Statements**

### **Absence from Course Commitments**

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 for either medical or non-medical academic accommodation, then such documentation must be submitted by the student to the instructor.

### **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:

[https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_grad.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.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.

### **Copyright and Audio/Video Recording Statement**

Course material produced by faculty is copyrighted and to reproduce this material for any purposes other than your own educational use contravenes Canadian Copyright Laws. You must always ask permission to record another individual and you should never share or distribute recordings.

### **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/>.

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

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

Academic Support and Engagement: <http://academicsupport.uwo.ca/>

SGPS Life & Community web page: [https://grad.uwo.ca/life\\_community/self/index.html](https://grad.uwo.ca/life_community/self/index.html)

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 Chair), or other relevant administrators in their unit. Health and Wellness-related information and services are available at <https://www.uwo.ca/health/>.

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

### **Accessible Education Western (AEW)**

Western is committed to achieving barrier-free accessibility for all its members, including graduate students. As part of this commitment, Western provides a variety of services devoted to promoting, advocating, and accommodating persons with disabilities in their respective graduate program.

Graduate students with disabilities (for example, chronic illnesses, mental health conditions, mobility impairments) are strongly encouraged to register with Accessible Education Western (AEW), a confidential service designed to support graduate and undergraduate students through their academic program. With the appropriate documentation, the student will work with both AEW and their graduate programs (normally their Graduate Chair and/or Course instructor) to ensure that appropriate academic accommodations to program requirements are arranged. These accommodations include individual counselling, alternative formatted literature, accessible campus transportation, learning strategy instruction, writing exams and assistive technology instruction.

More information and access to services is available on the AEW website:

[http://academicsupport.uwo.ca/accessible\\_education/index.html](http://academicsupport.uwo.ca/accessible_education/index.html)

### **Department & Faculty Offices**

The Department of Epidemiology and Biostatistics is located on the third floor of the Western Centre for Public Health & Family Medicine (PHFM) on Western University's Main Campus.

### **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.

### **Cell Phone and Electronic Device Policy**

The Schulich School of Medicine & Dentistry is committed to ensuring that testing and evaluation are undertaken fairly across all our departments and programs. For all tests and exams, it is the policy of the School and the Department of Epidemiology and Biostatistics that any electronic devices, i.e., cell phones, tablets, cameras, or iPod are strictly prohibited. These devices **MUST** be left either at home or with the student's bag/jacket at the front of the room and **MUST NOT** be at the test/exam desk or in the individual's pocket. Any student found with one of these prohibited devices will receive a grade of zero on the test or exam. Non-programmable calculators are only allowed when indicated by the instructor. The Department of Epidemiology and Biostatistics is not responsible for stolen/lost or broken devices.