Department of Epidemiology & Biostatistics

Epidemiology 9576T
Health Economics Research Methods
Winter 2017

Time: Mondays 1:30-4:30

Location: Kresge Building, K7

Instructor: Dr. Ava John-Baptiste
Office Hours: To Be Announced
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Teaching Assistant: Steven Habbous
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Office Hours: To Be Announced

Course Information

Pre-requisite: Epidemiology 9574S or equivalent

Unless you have either the requisites for this course or written special permission from the Undergraduate Chair to enrol, you may be removed from this course and it will be deleted from your record. 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 focuses on empirical methods to evaluate health interventions from an economics perspective. The topics to be covered include decision-analytic models, Markov models, microsimulation models, probabilistic sensitivity analysis and analysis of health care costs and effects for economic analysis. Through lab sessions and a final project, this course will provide students with hands-on experience in conducting empirical health economics evaluation using TreeAge Pro.
Learning Outcomes:

By the end of this course, students will be able to:
- Construct decision-analytic models for cost-effectiveness analysis using the TreeAge software package;
- Determine the optimal modeling approach for an economic evaluation question (simple decision trees, Markov models or microsimulation models);
- Incorporate effectiveness estimates from the literature into decision models using appropriate techniques;
- Perform uncertainty analysis using deterministic and probabilistic approaches; and
- Present the findings of cost-effectiveness models using written and oral formats.

Topics

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<td>Overview and Introduction Decision Trees</td>
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Course Materials

Textbook:

There is no assigned textbook for this course. We will instead focus on selected materials from several books, journal articles and handouts. Students are, however, expected to be comfortable with the materials covered in the Introductory Health Economics course and the Cost-Effectiveness Analysis Course. This course will cover core health economics evaluation topics and selected advanced topics depending in part on the availability of time.
Useful Texts:

TreeAge Pro Suite 2009 Instruction Manual, Williamstown (MA): TreeAge Software Inc.


Methods of Evaluation

A. Assignment 1 - 10%

B. Assignment 2 – 10%

C. Presentation - 10%

D. Project - 70%

Marking Reassessments

Should you have concerns about a mark you have received on an assignment, you are welcome to request a reassessment from the instructor. In order to request a reassessment, please write one paragraph explaining why you believe you deserve a different mark from the one that you received. This will be read in conjunction with your original submission. The instructor will reassess your assignment based on this information. Requests for changes in marking made in any other manner will not be considered.
Policy on Accommodation for Medical and Non-Medical Absences

For assignments worth 10% or more, refer to Western University's Policy on Accommodation for Medical Illness: https://studentservices.uwo.ca/secure/index.cfm. Weekly in-class quizzes that are missed due to medical illness cannot be accommodated; however, in the event of an extended illness, accommodations will be made at the discretion of the instructor.

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

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/

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. Campus mental health resources may be found at http://www.health.uwo.ca/mental_health/resources.html

To help you learn more about mental health, Western has developed an interactive mental health learning module, found here: http://www.health.uwo.ca/mental_health/module.html. This module is 30 minutes in length and provides participants with a basic understanding of mental
health issues and of available campus and community resources. Topics include stress, anxiety, depression, suicide and eating disorders. After successful completion of the module, participants receive a certificate confirming their participation.

**Department & Faculty Offices**

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

For undergraduate academic counseling assistance, students will need to speak with the Bachelor of Medical Sciences Office: [http://www.schulich.uwo.ca/bmsc/general-counselling](http://www.schulich.uwo.ca/bmsc/general-counselling).

**Technology Requirements**

Students are responsible for all materials and announcements posted to the course 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.