

Department of Epidemiology and Biostatistics

Epidemiology 3315B

Epidemiology of Major Diseases: Global Perspectives
Winter 2020

Lecture: Mondays 11:30am-1:20pm

Location: K106

Tutorial: Wednesdays 11:30am-12:20 pm

Location: K106

Office Hours: By appointment

Instructor: Dr. Saverio Stranges

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Co-instructor/TAs: Ishor Sharma
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Course Information

Pre-requisites: Epidemiology 2200A/B and either Biology 2244A/B or Statistical Sciences 2244A/B. Unless you have either the requisites for this course or written special permission from the Undergraduate Chair to enroll, 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 survey course aims to provide students with an overview of the descriptive epidemiology (incidence and prevalence) and analytic epidemiology (risk and protective factors) of some of the infectious and chronic non-communicable diseases that are the leading causes of death and disability in Canada and globally. Students will learn measures of disease burden applied at the individual and population levels, including cost of illness, years of life lost due to mortality, and health adjusted life years. The effects of personal characteristics, place, and time are emphasized. Key methodological considerations for the execution or interpretation of studies of each disease will be highlighted.

Learning outcomes

Upon successful completion of this course, students will be able to:

- Describe the epidemiological characteristics and relative impact of major infectious and chronic non-communicable diseases, both nationally and globally
- Explain approaches to the prevention and control of these diseases from a public health perspective
- Identify methodological challenges associated with epidemiological studies of each condition

Course Schedule

Week	Date	Instructor	Topic
1	January 6-8	Saverio Stranges	Course Overview & Intro to Population Health
2	January 13-15	Saverio Stranges	Epidemiological Transition & Global Burden of Disease
3	January 20-22	Shehzad Ali	Understanding the Role of Social Determinants of Health and Health Equity
4	January 27-29	Igor Karp	Global Epidemiology of Cancer
5	February 3-5	Saverio Stranges Neville Suskin	Global Epidemiology of Cardiovascular Disease
6	February 10-12	Luciano Sposato	Global Epidemiology of AF, Stroke, & Dementia
-	February 17-19	Reading Week - No Classes	
7	February 24-26	Kristin Clemens	Global Epidemiology of Diabetes Mellitus Global Epidemiology of Kidney Disease
8	March 2-4	Jessica Prodger	Global Epidemiology of HIV/AIDS
9	March 9-11	Kathryn Nicholson	Global Epidemiology of Multimorbidity/Aging
10	March 16-18	Kelly Anderson	Global Epidemiology of Mental Disorders
11	March 23-25	Matthew Meyer	Understanding and Design of Health Systems
12	March 30 April 1	Jorge Burneo	Global Epidemiology of Epilepsy
13	April 6-8	Saverio Stranges	Student Presentations

Course Materials

Required: Custom Course Book available at the campus book store.

Additional readings, lecture notes, and assignments will be posted to the course OWL page as required.

Methods of Evaluation

- 10% - Tutorial participation
- 10% - Weekly “one sentence” quizzes
- 20% - Midterm exam
- 30% - Assignment: Epidemiology of other diseases
- 30% - Final exam

Tutorial Participation (10%):

- Students are expected to actively participate in all tutorial discussions and activities.
- Note that participation will be assessed by the TA on a weekly basis. Absences without a valid reason will be assigned a mark of zero.

Weekly “one sentence” quizzes (10%):

- At the end of each Monday session, students will complete a “one sentence quiz” on a topic covered during the lesson.
- The best ten quiz marks will be used to calculate this grade.
- Students who are absent will receive a grade of zero for that week’s quiz.

Midterm exam (20%):

- The midterm exam will consist of a combination of multiple choice and short answer questions, and will include material from lectures, readings, and tutorials for the first half of the term (up to reading week).
- **Date: February 12, 2020**

Assignment: Epidemiology of other diseases (30%):

- Each student will select a disease that has NOT been previously covered in the course and will prepare a written report on the descriptive and analytic epidemiology of the condition, as well as public health efforts towards prevention and control (25% of grade).
- Students will also give a 15-minute presentation on the topic (5% of grade).
- Proposed topics must be cleared with the instructor by **January 31, 2020**.
- **Presentations: April 6-8, 2020 in class**
- **Due Date: April 5, 2020 on OWL by 12:00 pm**

Final Exam:

- The final exam will consist of a combination of multiple choice and short answer questions, and will include material from all lectures, readings, and tutorials over the course of the semester.
- The exam will be scheduled during the final exam period.

Marking reassessments:

Should you have concerns about a mark you have received on an exam or 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 exam or assignment based on this information. Requests for changes in marking made in any other manner will not be considered.

Late assignment policy:

Please negotiate an alternative deadline with the instructor in advance if you foresee difficulties meeting the assigned due date.

General information**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>.

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 counselling assistance, students will need to speak with the Bachelor of Medical Sciences Office: <http://www.schulich.uwo.ca/bmsc/general-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.

Policy on Recording Devices and Use of Other Electronic Communications

Recording of lectures or tutorial sessions are permitted with permission of the instructor and consent of all students in the class.

Please refrain from using mobile phones during class time. Laptops and tablets are permitted if they contribute to your learning. However, electronics can be a major distraction in class and disrupt class discussion, not only for the student using the device but also for classmates (see Fried 2008, *Computers & Education*, 50(3), 906-914). Given the relatively small class size, I would strongly suggest you put away your devices and take notes by hand so you can fully engage in the material. All lecture slides will be provided. Electronic devices will not be permitted during the midterm or final exams.