

**Faculty of Health
School of Kinesiology and Health Science**

Course:

KINE 4565: Epidemiology of Injury Prevention - Section M

Winter term 2019

Course Instructor:

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Course consultation hours: Wednesdays: 8:00-9:30 a.m. by skype or by appointment

Skype account: tamim.kine

To download skype go to: www.skype.com

Course format:

This is a blended format course that combines on-campus classroom meetings with online delivery of content in a purposeful and integrated approach. On-campus classroom meetings will take place on Tuesdays and Thursdays 1:00-2:30pm (HNE 001). Please refer to the "schedule" section below for detailed information on the days when on-campus classroom meetings will take place. A substantial amount of the course work occurs online. The online portion of the course uses a combination of recorded lectures, assigned readings and videos. On-campus classroom meetings will include lectures, problem based learning exercises and students' presentations. Students are encouraged to use the Discussion platform of moodle to post questions, answers and discussions regarding course material. The course is supported by moodle. All material will be posted on moodle at least a week in advance. Please check the course website regularly.

Course Learning Objectives:

Brief statement of the purpose: This course focuses on an understanding of the epidemiology of injuries and effective strategies for prevention. Emphasis is placed on the interaction between individual and social variables that lead to injuries throughout the life span. The course covers topics on: Introduction to epidemiology (study designs, measures of associations and biases encountered), Haddon's matrix and approaches to injury prevention (education, engineering and enforcement). Injuries due to falls, motor vehicle, burns, and other mechanisms of injury will also be covered.

This course provides students with an understanding of the burden of injury as a public health problem. It encourages them to think critically about the prevention of injuries, including examination of individual, social, geographic and economic variables that may be associated with injuries. It provides students with opportunities to conduct literature reviews and develop research proposal skills.

This course is designed to promote critical thinking skills through learning about injury problems and ways to prevent them. It is based on a self-directed learning model. Students are encouraged

to question, think critically, and offer suggestions, and to seek information outside the classroom environment.

Goals of the course include:

- To describe the magnitude of the injury problem in Canada
- To understand and apply the Haddon matrix to different injury problems
- To discuss risk factors and preventive strategies for different types of injuries
- To review injury literature and critically evaluate the work
- To summarize the injury literature and propose a project to address an identified knowledge gap

Course Textbook:

No specific textbook will be required for the course. The emphasis will be on recorded lectures and assigned readings; however, suggested books are:

-Gordis, L. Epidemiology. WB Saunders Co., Philadelphia, 2004 (3rd Edition).

-Lilienfeld: Foundations of Epidemiology, Third Edition, (Oxford), 1994

-Hennekens: Epidemiology in Medicine, (Little, Brown and Company), 1987

Evaluation:

The final grade for the course will be based on the following items weighted as indicated:

Assignment 1: 15%

Assignment 2: 15%

In-class test: 20%

Oral presentation: 15%

Injury related research proposal: 30%

Participation: 5%

Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles.

Students are allowed to work in groups of 2 or 3 on assignments 1 and 2, the presentation, and the research proposal. All students of a group will receive the same grade.

In-class test

Students will have to complete an in-class test. The date of the test is noted under “schedule” at the end of the syllabus.

Students’ presentation

Chose an article on the assigned topic. Read the selected article and summarize it in a 10 minutes power point presentation to the class. Your presentation should include:

- a) brief background
- b) study objective
- c) study methods including research design
- d) study findings (what were their results)
- e) discussion (what does what they found mean?, strengths and limitations, your own interpretation of the strength of the study and its importance)

f) 3 questions for the class

Please note: The group is expected to email the instructor by 8am on the day of the presentation date: 1) full citation of the paper that they will present, 2) a summary of the paper (less than 350 words) and 3) the power point presentation slides.

Class participation

Every student is expected to come to class prepared. Attendance will be taken at 3 randomly selected in-class sessions throughout the term. The general mark assigned for each student is a ‘B’ (if they are present at 2 or more of the selected classes). Class participation marks can be raised if students are active participants including asking questions, and commenting on lectures, presentations and readings.

Hint: Attendance will be taken at the classes when students are presenting.

Assignments

Students are asked to complete 2 assignments. The due date for submitting each assignment is noted under “schedule” at the end of the syllabus. Students can work on the assignment in groups of 2 or 3.

Injury related research proposal

Length of the proposal should be between 8 and 10 (excluding references) pages double-spaced, font size 12. Do not go over the page limit. Students can work on the research proposal individually or in groups of 2 or 3 students.

This is intended to be a research proposal draft for a study of your topic area.

The proposal should include the following sections:

I) Summary

II) Background

a. Synthesis of your readings presented in the literature review (How did the literature articles agree? How did the literature articles disagree? Any trends? Any controversy? Strengths/weaknesses of existing evidence as a whole)

b. Rationale: Why is this research important

c. Research question

III) Proposed Research Methods

a. Study Design

b. Targeted population / study sample/ recruitment

c. Methods of data collection

IV) Implications of your Research Study

Choosing a topic for the research proposal

You may choose your own topic as it should be one that is interesting to you. Your topic area can be anything as long as it includes some type of injury. It should be broad enough to have several papers written about it, but not too broad so that you can limit the number of references. If you are unsure of the suitability of your topic, please email me. Topics may be selected by:

- Population: e.g., children, university students, older people
- Activity: e.g, specific sports, motor vehicle, farming
- Type of injury: e.g., fractures, neurotrauma

- Intervention: e.g., Community-based, protective equipment
- Outcome: e.g., hospitalization, death, ED visits
- Or a combination: e.g, fractures in university athletes

Some general comments for the research proposal:

1. Get help from a librarian before you start
2. Read the whole article. DO NOT use only the abstract- there is not enough information about methods, strengths, weaknesses, etc.
3. Be clear and fairly concise. Do not exceed the page limit.
4. Include page numbers, section headings, etc.

NOTE

Students have 1 week after the posting of test results or assignments to contact the instructor about marking concerns. Any request for remarking must be made in writing, and include a statement of the reason for the request and any supporting documentation. For consistency, such a request will involve re-evaluation of the entire test or assignment, and not an individual question in isolation.

Assignment Submission: Proper academic performance depends on students doing their work not only well, but on time. Accordingly, assignments for this course must be received on the due date specified for the assignment. Assignments received later than the due date will be penalized 10% per day that the assignment is late. Exceptions to the lateness penalty for valid reasons such as illness, compassionate grounds, etc., may be entertained by the Course Instructor but will require supporting documentation (e.g., a doctor's letter).

Missed Tests: Students with a documented reason for missing a course test, such as illness, compassionate grounds, etc., which is confirmed by supporting documentation (e.g., doctor's letter) may request accommodation from the Course Instructor. Such students will be given the opportunity to sit for a make-up test.

Grading: The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A+ = 9, A = 8, B+ - 7, C+ = 5, etc.). Presentations and tests will bear either a letter grade designation or a corresponding number grade (e.g. A+ = 90 to 100, A = 80 to 90, B+ = 75 to 79, etc.). For a full description of York grading system see the York University Undergraduate Calendar-<http://calendars.registrar.yorku.ca/2010-2011/academic/index.htm>.

IMPORTANT COURSE INFORMATION FOR STUDENTS:

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Curriculum & Academic Standards webpage (see Reports, Initiatives, Documents)

<http://www.yorku.ca/secretariat/senate/committees/ascp/documents/CourseInformationForStudentsAugust2012.pdf>

- York's Academic Honesty Policy and Procedures/Academic Integrity Website
- Ethics Review Process for research involving human participants

- Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities
- Student Conduct Standards
- Religious Observance Accommodation

SCHEDULE

Date	Meetings	Topic
January 3	ONLINE	Introduction
January 8	On campus meeting	Study designs (descriptive and cross sectional studies)
January 10	On campus meeting	Study designs (cohort and case control studies)
January 15	ONLINE	Study designs (Randomized Controlled studies)
January 17	On campus meeting	Overview of statistics
January 22	On campus meeting	How to perform a literature search and how to manage references (Mendeley) Library/ 021 Steacie Teaching Lab
January 24	On campus meeting	How to perform a literature search and how to manage references (Mendeley) Library/ 021 Steacie Teaching Lab
January 29	ONLINE	Burden of Injury
January 31	ONLINE	Haddon Matrix / Approaches to injury prevention
February 5	ONLINE	Approaches to injury prevention Assignment 1 is due
February 7	ONLINE	Biases
February 12	On campus meeting	Designing a research project to answer a specific question: In-class activity Critique of a research paper: In-class activity
February 14	On campus meeting	Write-up of a research proposal I
February 19/21	Reading Week	NO CLASSES
February 26	On campus meeting	PRESENTATIONS- TOPIC: Injuries (non-specific) Assignment 2 is due
February 28	ONLINE	Write-up of a research proposal II
March 5	On campus meeting	PRESENTATIONS- TOPIC: sports and leisure activities
March 7	On campus meeting	PRESENTATIONS- TOPIC: Falls, occupational injuries and intentional injuries
March 12	ONLINE	Critique of a research paper
March 14	ONLINE	Injury severity measures / Injury care (pre-hospital care and trauma systems)
March 19	On campus meeting	In-class TEST
March 21	On campus meeting	PRESENTATIONS- TOPIC: transport injuries
March 26	On campus meeting	PRESENTATIONS- TOPIC: burns, poisoning and drowning injuries
March 28	ONLINE	Critique of a research proposal
April 2	ONLINE	Research proposal is due