

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

**Course:**

KINE 4565: Epidemiology of Injury Prevention - Section A - Fall term 2022

*Blended format*- a portion of this course will meet in person (please refer to “schedule” at the end of the syllabus)

Tuesday 10:00am-11:30am VH 1152A

Thursday 10:00am-11:30am HNE 035

**Course webpage:**

<https://eclass.yorku.ca/eclass/my/>

**Course Instructor:**

Hala Tamim, PhD

Office: Bethune College / room: 359

Phone: (416)736-2100 Extension: 33338

E-mail: [htamim@yorku.ca](mailto:htamim@yorku.ca)

Office hours (through zoom): by appointment, please contact the instructor at [htamim@yorku.ca](mailto:htamim@yorku.ca) to set a meeting to discuss course-related questions.

**Organization of the course:**

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 10:00am-11:30am (VH 1152A and HNE 035 respectively). 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 synchronized live online lectures, recorded lectures, assigned readings, videos, exercises and self-assessment short quizzes. On-campus classroom meetings will include lectures, problem-based learning exercises and students’ presentations. Students are encouraged to use the Discussion platform of eClass to post questions, answers and discussions regarding course material. The course is supported by eClass. All material will be posted on eClass 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:

**Attendance and participation:** 5%

**Assignment 1:** Fact sheet - 15%

**Assignment 2:** Fact presentation - 15%

**Test 1:** 30%

**Injury related research proposal:** 35%

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

**Attendance and 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.*

**Fact Sheet / Fact presentation:**

Assignments 1 and 2 require developing a “Fact Sheet” to be submitted on e-Class and a 5-minute “Fact Presentation” to be presented to students in class.

Both the “Fact Sheet” and the “Fact Presentation” focus on injuries related to a certain topic and should include the following:

- 1) Title
- 2) Aim of the “Fact Sheet” / “Fact Presentation”
- 3) Population being studied (for example, burn injuries among toddlers, ACL injuries among volleyball players, etc.) and whether you are interested in a certain geographic area (for example; in Canada, globally, etc.).
- 4) Scale of the problem (magnitude of the injury and impact in terms of for example mortality / morbidity/ disability / cost etc.)
- 5) Risk factors / determinants of the injury
- 6) Interventions that have shown to reduce these injuries
- 7) References (referencing at least 3 literature sources)

**Fact Sheet**

Students can work on the Fact Sheet individually or in groups of 2 or 3.

**Fact Presentation**

During the second, third and fourth week of the course, students will be asked to sign up for a class session related to the topic they are interested in presenting the Fact Presentation on. One of the students in each group should take the responsibility to e-mail the instructor the names of the group members and the date when they would like to present. Confirmation of the date is based on first come first serve basis. Students must choose an article that is based on the assigned topic for the week they are presenting on.

For the Fact Presentation, students must present in groups of 2 or 3 (not individually). All members of the group will receive the same grade.

More details about the preparation of the Fact Sheet / Fact presentation will be posted on e-class.

**Test 1:**

Test 1 will take place in person on campus.

**Injury related research proposal:**

Is a short proposal describing the components of your research question using the PICO framework, outlining the rationale and the methodology of the research proposal. More details about the preparation of the research proposal will be posted on e-class.

The injury related research proposal should be a maximum of 4 (excluding references) pages double-spaced, font size 12 and 1” margins. Do not go over the page limit.

**Please note:** 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

**Requirements for the research proposal:**

- 1) Phrase your complete research question
- 2) Brief background / rationale
- 3) Brief methodology

**Students can work on the research proposal individually or in groups of 2 or 3. All members of the group will receive the same grade.**

**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 must 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 the course test, such as illness, compassionate grounds, etc., which is confirmed by supporting documentation (e.g., doctor's letter) should contact the instructor immediately after the test has been written and may request accommodation from the Course Instructor. Such students will be given the opportunity to sit for a make-up test. A note that the format of the make-up test may not be the same as the regularly scheduled 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)

<https://secretariat.info.yorku.ca/files/CourseInformationForStudentsAugust2012-.pdf>

- Senate Policy on Academic Honesty and the 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

In this course, we strive to maintain academic integrity to the highest extent possible. Please familiarize yourself with the meaning of academic integrity by completing SPARK's [Academic Integrity module](#) at the beginning of the course. Breaches of academic integrity range from cheating (i.e., the improper crediting of another's work, the representation of another's ideas as your own, etc.) to aiding and abetting (helping someone else to cheat). All breaches in this course will be reported to the appropriate university authorities, and can be punishable according to the [Senate Policy on Academic Honesty](#).

### **Calumet and Stong Colleges' Student Success Programming:**

[Calumet](#) and [Stong](#) Colleges aim to support the success of Faculty of Health students through a variety of **free programs** throughout their university career:

- [Orientation](#) helps new students transition into university, discover campus resources, and establish social and academic networks.
- [Peer Mentoring](#) connects well-trained upper-year students with first year and transfer students to help them transition into university.
- [Course Representative Program](#) supports the academic success and resourcefulness of students in core program courses through in-class announcements.
- [Peer-Assisted Study Sessions \(PASS\)](#) involve upper-level academically successful and well-trained students who facilitate study sessions in courses that are historically challenging.
- [Peer Tutoring](#) offers one-on-one academic support by well-trained Peer Tutors.
- Please connect with your Course Director about any specific academic resources for this class.
- Calumet and Stong Colleges also support students' [Health & Wellness](#), [leadership and professional skills development](#), [student/community engagement and wellbeing](#), [Career Exploration](#), [Indigenous Circle](#), [awards and recognition](#), and [provide opportunities to students to work or volunteer](#).
- For additional resources/information about Calumet and Stong Colleges' Student Success Programs, please consult our websites ([Calumet College](#); [Stong College](#)), email [scchelp@yorku.ca](mailto:scchelp@yorku.ca), and/or follow us on Instagram ([Calumet College](#); [Stong College](#)), Facebook ([Calumet College](#); [Stong College](#)) and [LinkedIn](#).
- Are you receiving our weekly email (Subject: "Calumet and Stong Colleges - Upcoming events")? If not, please check your Inbox and Junk folders, and if it's not there then please

contact [ccscadmin@yorku.ca](mailto:ccscadmin@yorku.ca), and request to be added to the listserv. Also, make sure to add your 'preferred email' to your [Passport York personal profile](#) to make sure you receive important news and information.

<b><u>SCHEDULE</u></b>		
<b>Date</b>	<b>Meetings</b>	<b>Topic</b>
September 8	ONLINE	Unintentional and intentional injuries
September 13	On campus meeting	Introduction
September 15	ONLINE	Burden of Injury / key determinants of injury
September 20	ONLINE	Haddon Matrix
September 22	ONLINE	Approaches to injury prevention
September 27	ONLINE	Study designs (descriptive and cross-sectional studies)
September 29	ONLINE	Study designs (cohort and case control studies) <b>Assignment 1 is due</b>
October 4	On campus meeting	<b>FACT PRESENTATIONS-</b> TOPIC: injuries (non-specific)
October 6	On campus meeting	<b>FACT PRESENTATIONS-</b> TOPIC: sports and leisure activities
October 11/ 13	Reading Week	NO CLASSES
October 18	On campus meeting	<b>FACT PRESENTATIONS-</b> TOPIC: falls, occupational and intentional injuries
October 20	ONLINE	Study designs (Randomized Controlled studies)
October 25	ONLINE	Biases
October 27	ONLINE	Overview of statistics
November 1	On campus meeting	<b>FACT PRESENTATIONS-</b> TOPIC: transport injuries, burns, poisoning and drowning injuries
November 3	ONLINE	Critique of a research paper
November 8	On campus meeting	<b>In-class TEST</b>
November 10	ONLINE	<b><u>Synchronized online library session</u></b> on How to perform a literature search and how to manage references
November 15	ONLINE	PICO framework
November 17	ONLINE	Designing a research project to answer a specific question
November 22	ONLINE	Write-up of a research proposal I
November 24	On campus meeting	Write-up of a research proposal II
November 29	ONLINE	Write-up of a research proposal III
December 1	ONLINE	Critique of a research proposal
December 6	ONLINE	<b>Research proposal is due</b>