**Acknowledgement of Indigenous Peoples and Traditional Territories**:
York University recognizes that many Indigenous nations have longstanding relationships with the territories upon which our campuses are located that precede the establishment of York University. We acknowledge our presence on the traditional territories of the Mississaugas of Credit First Nation, the Huron-Wendat, the Haudenosaunee Confederacy and the Métis Nation of Ontario.

YORK UNIVERSITY

FACULTY OF HEALTH

SCHOOL OF KINESIOLOGY AND HEALTH SCIENCE

HH KINE 2049 3.0

# RESEARCH METHODS IN KINESIOLOGY

Fall 2020

*** Please note that this is a course that depends on remote teaching and learning. There will be no in-class interactions or activities on campus. All times in the course outline or elsewhere related to this course are in local time (Toronto, Ontario, Canda). ***

This course is an introduction to the procedures utilized to design and conduct research in the discipline of Kinesiology and Health Science. Topics covered include research design, ethics in research, information retrieval, data collection methods, subject selection, sources of error, types of research, and presenting results. In addition, students will gain "hands-on" experience using computers as a tool to assist in research.

## Take Care of Yourself:

We are all dealing with a tremendous amount of stress, anxiety, fear, and uncertainty as a consequence of the COVID-19 pandemic. Please be kind and gentle with yourselves and others during this difficult period of time. There are a number of online free resources available to help support you. If you need help, the following list of websites (this is not an exhaustive list) may be a good place for you to start:

https://good2talk.ca/
https://counselling.students.yorku.ca/
https://coronavirus.info.yorku.ca/
https://yorkinternational.yorku.ca/

**Prerequisites**: None. **Course Credit Exclusions**: PSYC 2030 3.0

**Course Director**: Professor **Merv Mosher**
359 Stong College

mmosher@yorku.ca

**Virtual Office Hours:**

Regular online office-hours will be held throughout the term. The exact schedule will be posted on the course eClass site (formerly Moodle). If needed, a virtual office-hour appointment can be arranged.

**Email correspondence**:

Email communication should be reserved primarily for issues that need to be resolved immediately. Questions that arise related to course content should be posted on the eClass (formerly Moodle) Discussion Boards or discussed during the regularly scheduled virtual office hours.

Please ensure that email messages are professional, clear, and coherent. Assume that your email will be the factor determining whether you are accepted into a professional program or hired at your dream job. Avoid text messaging terms, inappropriate language, emoticons, and poor spelling, punctuation, and grammar. I can only respond to emails that I understand. I generally review and respond to course-related student emails quite promptly with the exception of emails sent on weekends. These will likely be answered on the first business day of the following week.

**Course Website**: https://eclass.yorku.ca/eclass/course/view.php?id=12894

**Professor's web site**: http://mmosher.info.yorku.ca/

**Course texts**:

> Course Kit: Research Methods in Kinesiology and Health Science, York University, 2020. Please see the York University Bookstore webpage (https://bookstore.yorku.ca) for ordering books and for the information about free shipping of course kits to students with a Canadian address.

**Course Materials Copyright Information**

These course materials are designed for use as part of this course at York University and are the property of the instructor unless otherwise stated. Third party copyrighted materials (such as book chapters, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law. Copying this material for distribution (e.g. uploading material to a commercial third-party website) may lead to a violation of Copyright law. Intellectual Property Rights Statement.

**Technical requirements for taking the course:**

Since the entire course will be delivered remotely, two platforms will be used, (i.e., eClass (formerly Moodle), and Zoom), through which students will interact with the course materials,

the course director, Teaching Assistants, as well as with one another. Therefore, a computer or smart device with a camera and microphone is required to complete the course.

Please review this syllabus carefully to determine how the course content will be delivered, how office hours will be conducted and how assignments will be submitted.
Students must make every effort to arrange adequate internet connection, especially for tests and exams. If a student has any concerns about their internet connection, they should seek all available options for writing their exams/tests/quizzes in a location with a stable internet connection. In the event that a student is not confident they can access a reliable internet connection, they should communicate their concerns to the Course Director well in advance of the quiz/test/exam.

Students should note the following:
- Zoom is hosted on servers in the U.S.A. This includes recordings done through Zoom. • If you have privacy concerns about your data, provide only your first name or a nickname when you join a session.
- The system is configured in a way that all participants are automatically notified when a session is being recorded. In other words, a session cannot be recorded without you knowing about it.

**Technology requirements and FAQs for Moodle can be found here –**

**Useful links describing computing information, resources and help for students:**

| | |
|---|---|
| Student Guide to Moodle | https://lthelp.yorku.ca/student-guide-to-moodle |
| Computing for Students Website | https://student.computing.yorku.ca/ |
| Student Guide to eLearning at York University | http://elearning-guide.apps01.yorku.ca/ |
| Learning Skills Services | https://lss.info.yorku.ca/online-learning/ |
| Zoom@YorkU User Reference Guide | http://staff.computing.yorku.ca/wp-content/uploads/sites/3/2012/02/Zoom@YorkU-User-Reference-Guide.pdf |
| Zoom@YorkU Best Practices | https://staff.computing.yorku.ca/wp-content/uploads/sites/3/2020/03/Zoom@YorkUBest-Practicesv2.pdf |

Students are responsible for being actively involved in the course, and for checking eClass (formerly Moodle) regularly and frequently to ensure you have the latest information about the course. “I did not know because I was not online” or “because I did not check eClass” are not excuses that will be accepted under any circumstances for the course.

**Organization of the course:**

KINE 2049 is being delivered remotely via eClass (formerly Moodle) and Zoom; **there will be no in-class interactions or activities on campus**. KINE 2049 involves a blend of asynchronous (participate on your own and at times you choose) and synchronous (students are expected to attend and participate at a specific time in live virtual/online sessions) modes of teaching.

**Lectures**: (Asynchronous mode)

Course lectures are scheduled as follows: Section A - M, W, at 10:30 am; and Section B - M, W, at 11:30 am. The 12-weeks of lecture material will be available on eClass, (formerly Moodle) in the form of pre-recorded videos which will be posted at the beginning of each week. You can watch the recordings at the scheduled lecture time or any other time you choose. This is referred to as asynchronous delivery. It is imperative that you watch the lecture material during the week the lecture is posted if you want to be successful in the course.

**Laboratories**: (Synchronous mode)

Each week, commencing September 21st, you will meet via Zoom with your Teaching Assistant, during the scheduled lab time in which you enrolled. It is during this 2-hour lab time that you will submit your weekly lab assignment. This is the synchronous portion of the course and **requires that you are available at the same time each week to meet with your Teaching Assistant**. The Teaching Assistant may record the synchronous Zoom lab-sessions to assist with record keeping. Students are NOT granted permission to record Zoom sessions.

Students are encouraged to complete the lab assignments at home prior to attending the weekly lab. To receive credit for completion of a lab, the assignment must be completed prior to the end of a student's assigned lab time. Late labs will not be marked.

*Labs commence the week of September 21, 2020.

The following statement MUST be included with each lab assignment that is submitted. "I confirm that the assignment I have submitted has been done independently and is my own work. I am aware of York University's policies about plagiarism and the penalties for plagiarism."

**Course Evaluation**: A simple way to explain the course evaluation is as follows: The Final Exam will be worth 100% of your mark unless you complete other components of the course. You do not lose marks if work is not attempted/completed. ***The percentage allocated for any course-work item that is not attempted/completed will remain as part of the weight of the final exam*.** Each item of course-work that a student completes, reduces the weighting of the Final Exam as shown below.

| | | |
|---|---|---|
| Quiz 0 | 0% | Based upon the Course Syllabus – you must complete this with a score of 100% before you can attempt the Weekly Quizzes and mid-term exams! |
| Lab Assignments | 10% | Weekly assignments based on labs. |
| Reading Quizzes | 15% | eClass quizzes on each Chapter in the Textbook. (10 questions in 10 minutes) |
| Mid-term exam 1 | 20% | Scheduled ***Oct. 28***, during lecture time. Section A: 10:30 am EDT Section B: 11:30 am EDT |
| Mid-term exam 2 | 20% | Scheduled ***Nov. 30***, during lecture time. Section A: 10:30 am EST |

Final exam 35% - 100% Scheduled during December exam period.

To preserve the academic integrity of this course, all exams/tests/quizzes completed on eClass, will utilize the **sequential** method of questioning. This means questions are presented one-at-a time. Once a student moves on to the next question that is considered the final answer. It is not possible to return to a question to review it. Please ensure that you have selected an answer before you move on to the next question. If you don't know the correct answer take a guess since there is no penalty for wrong answers.

**Exams/Tests:** (Synchronous mode)

The mid-term tests and the final exam **MUST** be written at the date and time noted below. Students must make themselves available at the time the section in which they are enrolled, (Section A or Section B), is writing the test/exam (mid-terms and final). All times noted are local Toronto times. Mid-term tests and the final exam are closed book exams which means no external aids (notes, books, calculators, or other reference materials) are permitted.

* * The mid-term and final exams cover material from the lectures, readings and labs.

***Students, who do not write Mid-term # 1, waive the right to receive "a specific percentage of graded feedback" prior to the drop date for the Fall term.***

***In the event a mid-term exam is missed the percentage allocated to the exam will be added to the final. There are no make-up exams in the course.***

**A student who misses the final exam** will only be allowed to write a deferred final exam if the student submits the following two, completed forms: 1) "Attending Physician's Statement", available online from the Registrar's Office, showing a physical incapability of writing the final exam, **dated the day of the final exam or earlier** and, 2) Deferred Standing Agreement. These two forms should be submitted to the Course Director immediately after the final exam has been written.

Note: The format of the deferred final exam will not likely be the same as the regularly scheduled final exam.

**eClass Quizzes based on each Chapter in the Textbook**: (Asynchronous mode)

The online quizzes may be written at any time during the week that is convenient for students. However, please note that if technical difficulties are encountered during the last 2 hours of the weekly quiz, no remedial action will be possible. In other words, don't wait until the last 2 hours to complete the weekly quizzes. Weekly Reading quizzes are open book quizzes which means you may refer to notes, summaries or the textbook. However, it is very easy to run out of time on an open book quiz. Keep in mind that students who place too much emphasis on their reference materials often underestimate how long it will take them to locate the information in their reference materials. It is important that students do the Weekly Reading prior to starting the quiz and only rely very minimally on reference materials.

** An appeal against any grade assigned to an item of course work must be made in writing to the course director within 7 days of the graded work being made available to the class. The result of an appeal may cause the grade to increase, decrease or remain the same.

The official record of grades in the course will be kept by the Course Director on a spreadsheet and uploaded to eClass (formerly Moodle), as the course progresses. Marks will be posted on eClass under the topic heading of Grades. These will be updated as the course progresses. The eClass gradebook is not the official record of grades.

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

Although numerical marks are assigned to each piece of work in this course there should be no assumption that a total number of marks translates directly to a letter grade. Letter grades will be determined by the descriptions in the York University Undergraduate Calendar.

**Academic Honesty And Integrity:**

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.

To promote academic integrity in this course, students may be required to submit their written assignments to Turnitin (via eClass) for a review of textual similarity and the detection of possible plagiarism. In so doing, students will allow their material to be included as source documents in the Turnitin.com reference database, where they will be used only for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin service are described on the Turnitin.com website.

The following statement MUST be included with each lab assignment that is submitted. "I confirm that the assignment I have submitted has been done independently and is my own work. I am aware of York University's policies about plagiarism and the penalties for plagiarism."

**Test Banks**

The offering for sale of, buying of, and attempting to sell or buy test banks (banks of test questions and/or answers), or any course specific test questions/answers is not permitted in the Faculty of Health. Any student found to be doing this may be considered to have breached the Senate Policy on Academic Honesty. In particular, buying and attempting to sell banks of

test questions and/or answers may be considered as “Cheating in an attempt to gain an improper advantage in an academic evaluation” (article 2.1.1 from the Senate Policy) and/or “encouraging, enabling or causing others” (article 2.1.10 from the Senate Policy) to cheat.

**Eproctoring:**

An online proctoring service may be used to deliver the mid-terms and final exam, which are administered through the Learning Management System (e.g. eClass). Students are required to have access to minimum technology requirements to complete examinations. If an online proctoring service is used, students will need to become familiar with it at least five days before exam(s). For technology requirements, Frequently Asked Questions (FAQs) and details about the online proctoring service visit – [https://registrar.yorku.ca/online-exams]. Students are required to share any technological (IT) accommodation needs with the instructor as soon as they are able.

**Electronic Devices During a Test/Examination**

Electronic mobile devices other than the one computer or tablet being used to write the test/exam are not allowed during a test or examination. Students are required to turn off and secure all electronic communication devices while a test/exam is in progress. Any student observed using more than one electronic device during a test/exam may be reported to the Undergraduate Office for a potential breach of Academic Honesty.

**Drop Dates:**

The last day to drop a Fall term course without receiving a grade is: **Nov. 6, 2020**.

The Course Withdrawal Period (withdraw from a course and receive a grade of “W” on transcript), is **Nov. 7 - Dec. 8, 2020.**

**Lecture Topics:**

Introduction to Research
The Scientific Process
Sampling and Measurement
Research: Questions and Types
Literature Review
Ethics: Principles and Practice
Experimental Research
Experimental Designs
Complex Experimental Designs
Qualitative Research
Survey Research
Other Types of Research
Disseminating Knowledge

**Recorded Lectures:**

Please note the York University policy regarding this technology.

The York University Student Code of Conduct specifically prohibits theft of intellectual property, which includes recording a course director's lecture without his/her permission or taking lecture material provided on line, modifying it, and/or using it for your own personal use or gain. The material provided is only to be used for your personal study when you take the course for which it was created. Use in any other way will result, at the minimum, in sanctions in accordance with the York Code and, at the maximum, will be breaking federal, provincial or municipal laws and will be acted on accordingly.

**Important Information For Students:**

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Academic Standards, Curriculum & Pedagogy website.

- 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

Policy on Free Speech:

York University reaffirms its commitment to provide an environment conducive to freedom of enquiry and expression where all members of the community may learn, teach, work and live, free from prejudice, inequality and discrimination based on race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, religion, sex, sexual orientation, gender identity, gender expression, age, marital status, family status or disability.

Disruptive and/or Harassing Behaviour in Academic Situations Policy:

York is committed to policies that support the teaching and learning of controversial subject matter. Students and instructors are, however, expected to maintain a teaching and learning environment that is physically safe and conducive to effective teaching and learning for all concerned, and to be civil and respectful at all times within the learning environment, including within classrooms, laboratories, libraries, study halls and other places where academic activities are conducted and in areas proximate to those where academic activities are taking place.

**Course Learning Expectations:**

After completion of KINE 2049 3.0 [Research Methods in Kinesiology] students will be able to:

a. describe the “scientific method/process”.
b. compare and contrast a variety of research designs appropriate for the field of Kinesiology and Health Science.

c. evaluate a research study conducted in the area of Kinesiology and Health Science.
d. analyse a research article in an academic journal.
e. apply Excel formulas and functions to answer research questions.
f. critically reflect upon health science literature in popular media.
g. define terminology commonly utilized in research.
h. plan and implement effective Internet search strategies.
i. design and create a poster presentation on an academic topic related to Kinesiology and Health Science.

**School of Kinesiology and Health Science Undergraduate Degree Level Expectations (UUDLES)**

*Depth and Breadth of Knowledge*

- Demonstrate knowledge of the terminology and nomenclature in Kinesiology and Health Science.
- Critically reflect on physical activity and health from individual to societal and local to global contexts.
- Integrate and critically analyze the bio-science, behavioural, and sociocultural aspects of physical activity and health.
- Critically evaluate and discuss current issues relating to Kinesiology and Health Science.
- Demonstrate a breadth and depth of knowledge in Kinesiology and Health Science in one or more specialized areas.

*Knowledge of Methodologies for Inquiry*

- Describe the process of research that is used to develop knowledge in the field of Kinesiology and Health Science.
- Apply research methods to kinesiology and human health topics and solve problems using their knowledge of research methods in the discipline.
- Evaluate information about physical activity and human health that is disseminated via popular media and discipline related research journals.

*Application of Knowledge*

- Apply multi-disciplinary knowledge of physical activity and health to life situations.
- Use knowledge and skills to advocate for the fundamentals of physical activity and health from general to specific situations.
- Apply subject-based theories, concepts or principles to solve problems.

*Communication Skills*

- Access Kinesiology and Health Science information from a variety of sources.
- Use appropriate academic terminology and notation when preparing and presenting information.
- Present ideas and arguments in a well-structured and coherent manner using appropriate communications formats.

*Awareness of Limits of Knowledge*

- Understand and appreciate the dynamic nature of information in Kinesiology and Health Science.
- Be aware of the limits in knowledge and methodologies when analyzing, evaluating, interpreting and disseminating information.

*Autonomy and Professional Capacity*

- Be able to identify areas for personal and professional development.
- Be able to think independently, problem solve and set tasks.
- Have developed mutually beneficial peer relationships for the purposes of mentoring and networking.

KINE 2049 3.0 Research Methods in Kinesiology - Fall 2020

**(Lecture Dates/Topics are Approximate)**

| **Week Beginning:** | **Monday** | **Wednesday** | **Laboratory** | **Readings** |
|---|---|---|---|---|
| September 7 | Labour Day **University closed No Classes** | Introductory Class – Admin. Details | No labs this week | Chapter 1& 2 |
| September 14 | How Not to be Ignorant About the World | How do we know what we know? | No labs this week | - Chapter 3 & 4<br>- Intro' to Excel video |
| September 21 | Heroes & Villains in the Scientific Process | Spin Doctors & the Scientific Process | Lab 1 | - Chapter 5 & 6<br>- Video: Creating Excel charts |
| September 28 | "Facts" and other Terms in Research | Nature and Purpose of Research | Lab 2 | - Chapter 7<br>- Video: Multiple worksheets |
| October 5 | Types of Research | Getting started: Sampling Procedures; Literature Review | Lab 3 | - Chapter 8<br>- Videos: Excel Functions 1 |
| October 12 | **[Fall Reading Week]** | **[Fall Reading Week]** | No labs this week | Review previous chapters - |
| October 19 | What could possibly go wrong?<br>Ethics in Research | "Big Bang" - Theories and other terms | Lab 4 | Chapter 9<br>- Videos: Excel Functions 2 |
| October 26 | Is It Real?<br>Measurement in Research - Validity & Reliability | **Quiz 1** | Lab 5 | - Chapter 10<br>- Videos: Excel Functions 3 |
| November 2 | Experimental Research - Design | Experimental Research Cont'd | Lab 6 | - Chapter 11<br>- Video: Excel Database |
| November 9 | Experimental Research Cont'd | Complex experiments – Factorial Design | Lab 7 | - Chapter 12 |
| November 16 | Complex experiments Interpreting Results | How can we study that? Other types of research | Lab 8 | - Chapter 13 |

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|---|---|---|---|---|
| November 23 | How can we study that? Other types of research | How can we study that? Other types of research | Lab 9 | - Chapter 14 |
| November 30 | **Quiz 2** | Presenting Your Research | Lab 10 | - Chapter 15 |
| December 7 | Presenting Your Research [Last lecture] | Final Exam period begins | No Labs | Review all chapters |
| December | **Exam period** - Dec. 9 – Dec. 23 | **Exam period** - Dec. 9 – Dec. 23 | Exam period | **Exam period** - Dec. 9 – Dec. 23 |