



Opportunities for Independent Studies 2023-24 **(updated May 5th, 2023)**

†† Indicates New Opportunities Posted as of May 5th, 2023

Independent Study Courses in Health Studies (HLTH 595, 491, and 456)* **Independent Study Courses in Kinesiology (KNPE 595, 491, and 456)***

Please submit applications directly to the relevant researcher(s) whose area of research is of interest. There is no deadline for applications, however there are a limited number of positions available. More opportunities may become available closer to the term(s).

HLTH/KNPE 595, 491, and 456 are designed to provide opportunities for students in Kinesiology or Health Studies who may be interested in pursuing research in laboratories or on community-based projects. Students will gain experience with the research process as it applies to the various fields of Kinesiology and Health Studies. This process may include, but is not limited to experimental design, data collection and analysis, literature searches, manuscript writing, and presentation skills.

** Please note that HLTH/KNPE 491 and 456 are 3.0 credit unit courses which can be taken in either fall or winter terms (some summer term opportunities also exist), and HLTH/KNPE 595 is a 6.0 credit unit course which spans across both the fall and winter terms.*

Research Summaries for Participating Faculty Members

The following is a summary of research interests for the faculty members within the School of Kinesiology and Health Studies who have indicated their intent to supervise fourth-year independent courses next year. Further information on each faculty member can be found on the [SKHS website](#). Other faculty members may also consider supervising undergraduate students at a later point in time, and this document will be updated accordingly.

FF New Opportunity as of May 1st, 2023 - Dr. Samantha King

Long COVID in Kingston

Independent Study Opportunity

HLTH or KNPE 491 or 595

Supervisor: Dr. Samantha King

Seeking a HLTH or KIN student to work on Phase 1 of a study of long COVID (aka post-COVID condition) in Kingston.

Precise focus and scope of research activities to be decided in collaboration with the supervisor, but could include:

- Identification of specialists, diagnostic and treatment options, services, and support groups in the KFL&A region or beyond.
- Interviews and/or focus groups with patients about their experiences living with and seeking recovery from long COVID.
- Interviews with clinicians and other professionals about their work with people with long COVID.
- Interviews with long COVID researchers about the state of knowledge production.
- Reviews of emerging biomedical, psychological, and socio-cultural literature on long COVID.

Applicants should send an email with a brief statement of interest (<150 words), CV/resumé, and unofficial transcript to kingsj@queensu.ca.

Dr. Eun-Young Lee (*In Situ* Population Health Research Lab) – Fall/Winter KNPE or HLTH 595 only

See the [In Situ Population Health Research lab's webpage](#) for more information.

In Situ Lab investigates social and environmental inequalities that have impact on human movement behaviours (e.g., physical activity, sedentary behaviour) and population health. On the topics of climate change, intersectionality, social and constitutional determinants of health, movement behaviours, and health, interns will work in a dynamic team environment alongside graduate students and researchers around the world, participating in literature reviews and/or various knowledge translation activities (e.g., mini reviews, systematic reviews, journal publications, website blog postings, social media management). Individuals with proficiency in languages other than English (e.g., Mandarin, Cantonese, Spanish, Arabic, Tagalog, Korean, Farsi, Bengali, Hindi) are encouraged to apply.

Interested students should contact Dr. Eun-Young Lee (eunyoung.lee@queensu.ca) with a cover letter, unofficial transcript, an example of written work (e.g., a term paper), and a resume/CV (c.c. to watering@queensu.ca). A cover letter should clearly indicate one's interests in one of the research themes outlined on the [lab webpage](#) and their relevant experiences .

Dr. Jean Côté and Dr. Luc Martin (Sport Psychology)

Number of positions: **One** student for each supervisor in KNPE 595 for 2023-24

Are you interested in being involved in research exploring the elements of positive youth sport experiences? Research in the sport psychology lab at Queen's focuses primarily on the characteristics of the youth sport environment (e.g., coach-athlete relationships, teammate interactions, coach characteristics) that create favourable conditions for excellence and participation in sport. In addition, current projects also relate to group dynamics principles (e.g., cohesion, subgroups) and coaching behaviours (e.g., transformational leadership) in sport.

Those students accepted for these positions will have opportunities to contribute to several ongoing projects and will be working with data derived from observations (e.g., coding videos), interviews (e.g., transcription), and questionnaires (e.g., inputting data). Finally, students typically experience the research process within the field of sport psychology, from data collection (e.g., video-recording sport competition, questionnaire distribution) all the way to data analysis and writing.

Interested students should contact Dr. Jean Côté at jc46@queensu.ca and/or Dr. Luc Martin at luc.martin@queensu.ca (c.c. to watering@queensu.ca) and attach a cover letter, unofficial transcript, and résumé or CV. Please title the e-mail 'KNPE/HLTH Independent Study Application' in the subject line.

Dr. Jessica Selinger (Neuromechanics)

Number of positions: Accepting students for fall **or** winter in KNPE 456 (literature review), or 491(special projects), or fall/winter KNPE 595 (honours thesis)

Dr. Selinger's group works to understand the fundamental principles that underlie the neuromechanics of legged locomotion, and the application of these principles to wearable and assistive technologies that can improve human mobility and overall health. To do so, they combine biomechanical and neurophysiological approaches to understand how gait is adapted to changing tasks, environments, and bodies. Ultimately, the purpose of their work is to design novel rehabilitative strategies and wearable technologies to aid those with mobility impairments. Current research themes include:

- Understanding energetic cost optimization in human locomotion
- Neural mechanisms and models in locomotor learning
- Biofeedback for improved learning and rehabilitation
- Investigating ecological human movement through wearable tech

Interested students should send a cover letter and unofficial transcript to Dr. Selinger at j.selinger@queensu.ca (c.c. to watering@queensu.ca).

Dr. Pouya Amiri (New Faculty Member in Biomechanics and Ergonomics)

Number of positions: There will be **one** literature review course opportunity (KNPE 456/3.0) in the fall.

No longer accepting applications for honours thesis (KNPE 595/6.0).

My research focuses on understanding the underlying cause of movement impairment and applying this knowledge to prevent illness and optimize health and physical performance. To do this, I combine computational musculoskeletal models, medical imaging, and functional experiments to quantify muscle and joint forces and develop subject-specific interventions (e.g., personalized surgeries) and rehabilitation technologies (gait training devices). I am particularly interested in biomechanical adaptations due to lower limb amputation, mechanics of knee osteoarthritis, and human balance control and fall prevention in the elderly.

The honours thesis will focus on developing a real-time biofeedback training system for gait rehabilitation of lower limb amputees and patients with knee osteoarthritis. Possible topics for the literature review course are:

- Biomechanical adaptations due to ACL injuries that lead to knee osteoarthritis development
- Ankle prostheses for traumatic amputees
- Osseointegration prostheses for transfemoral amputees

Interested students should send a cover letter, an unofficial transcript, and their resume to me at p.amiri@queensu.ca (c.c. watering@queensu.ca). Please use “KNPE/HLTH 595 Honours Thesis Application” or “KNPE/HLTH 456 Literature Review Course Application” in the subject line depending on your selection.

Dr. Courtney Szto (Sociocultural Studies)

Dr. Courtney Szto is interested in supervising students who have a project idea that they would like to explore through the following course options:

- KNPE/HLTH 456 (Winter term)
- KNPE/HLTH 491 (Winter term)
- KNPE/HLTH 595

Students should have a general idea of what they would like to research in this self-directed course. Possible project areas can include (but are not limited to): environmental issues, race/racism, gender, sexuality, class, consumption, (social) media, food etc.

Interested students should send a cover letter, and an unofficial transcript to Dr. Szto at c.szto@queensu.ca (please c.c., watering@queensu.ca). Please use “KNPE/HLTH 595 Honours Thesis Application”, or “KNPE/HLTH 456 Literature Review Course Application”, or “KNPE/HLTH 491 Special Projects Application” in the subject line depending on your selection.

Dr. Elaine Power (Sociocultural Studies) – Positions in HLTH 456/491/595 Fall/Winter 2023-24

Dr. Power's research straddles food studies and public health sociology, with a particular focus on food insecurity, conceptualizations of the right to food, and policy responses to food insecurity, including community food programs, food banks, and basic income. Dr. Power would be pleased to supervise 4th year independent study projects in these areas, or related areas, including social determinants of health, public health, food systems, or food studies more broadly. Students do not need to have a final topic decision before applying; Dr. Power is happy to discuss possible topic areas with students.

Interested students should contact Dr. Power at power@queensu.ca, (c.c. watering@queensu.ca) and attach a cover letter outlining your interest in an independent study course, unofficial transcript, a sample of writing (such as a course paper), and a resume. Please put 'HLTH Independent Study Application' in the subject line of the email.

Dr. Stevenson Fergus (Health Promotion and HIV) – Positions in HLTH 456/491

Dr. Stevenson Fergus is happy to supervise 4th-year independent study projects in health promotion, public health, health policy, the social determinants of health, or related areas. Students wishing to study aspects of HIV/AIDS, gender-based violence, substance use, harm reduction, and the opioid overdose crisis are especially encouraged to apply, although other student interests can also be accommodated. There's no need to have a finalized topic identified, as he will help you to identify one. Opportunities include a 3-credit literature review (HLTH 456), or a 3-credit special project (HLTH 491).

Interested students should contact Dr. Fergus at ferguss@queensu.ca (c.c. watering@queensu.ca), and attach a cover letter, unofficial transcript, and resume or CV. Please title the e-mail 'KNPE/HLTH Independent Study Application' in the subject line.

Dr. Joseph Kangmennaang (QNS – Black Health and Social Change)

Number of positions: There is **one** literature review course opportunity (KNPE 456/3.0).

Dr. Kangmennaang's research explores transnational Black Health (sub-Saharan Africa and North America) and specifically examines how Black health and wellbeing are impacted by social, economic, and demographical changes. Joseph will consider independent study students for the 2022-2023 academic year to help with any of the following project areas:

1. **Transnational understanding of diabetes risk among Black and racialized populations:** Example of tasks include conducting literature reviews, transcription, qualitative and quantitative data analysis.
2. **Promoting childcare equity among racialized populations in USA and Canada:** Examples of tasks include conducting literature review, and data analysis to understand caregivers' perceptions childcare access in Charlotte North Carolina (USA) and Kingston and London Ontario (Canada).

These projects can be adapted to align with the student's interests and goals. The successful intern(s) can work remotely if required/preferred. Interested students should send a cover letter, unofficial transcript, and resume or CV to Dr. Joseph Kangmennaang by e-mail at jk191@queensu.ca (c.c. to watering@queensu.ca).

Dr. Lucie Lévesque - Accepting KNPE or HLTH 595 Students for the Fall/Winter 2023

Dr. Lévesque leads the [Community-Engaged Health Promotion Research group](#) in the School of Kinesiology and Health Studies. Her research focuses on program evaluation and implementation science examining community-based physical activity interventions through an ecological approach. A long-time member of the Kahnawake Schools Diabetes Prevention Project (KSDPP) <https://www.ksdpp.org/> research team, and frequent collaborator on Indigenous research initiatives, Dr. Lévesque has extensive experience working with Indigenous communities within a participatory research framework. Her work is founded on community engagement for the production and dissemination of action-oriented knowledge. Dr. Lévesque's research encompasses both Indigenous and mainstream/Western science approaches and has informed the ways in which respectful and relevant research is conducted with Indigenous communities in Canada (e.g., [KSDPP Code of Research Ethics](#); Canada's Tri Council Policy Statement 2: [Module 9 – Research Involving the First Nations, Inuit and Métis Peoples of Canada](#)). In addition to her research with Indigenous communities, she also collaborates with public health researchers in local communities and in Mexico and the Caribbean to conduct program evaluation and research related to physical activity and health promotion. Locally, she is a founding member of Kingston Gets Active <https://kingstongetsactive.ca/> which provides many opportunities for SKHS students to learn about physical activity interventions and evaluation.

Interested students should contact Dr. Lévesque at levesgul@queensu.ca, and attach a cover letter, unofficial transcript, and resume or CV. Please title the e-mail 'KNPE/HLTH Independent Study Application' in the subject line.

Dr. Bob Ross (Lifestyle and Cardiometabolic Research Lab)

Number of positions: One or two positions each in KNPE 491 and KNPE 595.

The Lifestyle and Cardiometabolic Research Unit under the supervision of Dr. Robert Ross will offer **three** research internship positions this year. Interns will be exposed to research that explores the associations between exercise and various health outcomes, and will participate in data collection, analysis and interpretation. Ongoing studies include examination of dose-response issues between exercise intensity, volume and metabolic risk factors including glucose tolerance, inflammation and dyslipidemia.

- Interested students should send a cover letter, unofficial transcript, and resume or CV to Dr. Ross by e-mail rossr@queensu.ca (c.c. to watering@queensu.ca).

Dr. Brendon Gurd and Dr. Chris McGlory

(Research Mini-Stream Positions in Nutrition and Exercise Metabolism)

The Queen's University Muscle Physiology Lab ([QPML](#)) and the Nutrition and Metabolism Research Group (NMRG) are accepting applications to the SKHS Research Mini-Stream. Research Mini-Stream students in the QPML/NMRG will be co-supervised by Drs. [Brendon Gurd](#) and [Chris McGlory](#)

Drs. Gurd and McGlory are committed to providing Research Mini-Stream opportunities to BIPOC students. If you identify as a BIPOC student and are interested in nutrition and exercise metabolism you are highly encouraged to apply. If you are comfortable doing so please identify yourself as BIPOC in your application.

It is anticipated that successful applicants will complete the Research Skills Development Practicum (HLTH/KNPE 352) in 3rd year (2023-24) and an Honours Thesis (HLTH/KNPE 595) in 4th year (2024-25) under the co-supervision of Drs. Gurd and McGlory. The completion of an independent study literature review (HLTH/KNPE 456) during the summer between 3rd and 4th year (summer 2024) will be strongly encouraged. Students successfully completing 352 and 595 will receive the SKHS Research Mini-Stream Certificate.

352 – Research Skills Development Practicum

- Receive formal instruction and feedback on presentation skills.
- Deconstruct research problems in published literature.
- Learn to support research questions with relevant literature and to assess study design and methodological strengths and limitations.
- Receive training and experience with the breadth of research techniques utilized in the QPML and NMRG.
- Assist graduate student research project and contribute to research that meets publication standards.

456 – Literature review (completed remotely during summer between 3rd and 4th year)

- Complete a review of the literature relevant to thesis project.
- Generate a research question and contribute to design of thesis project.

595 – Honours Thesis

- Complete a research project that meets publication standards in collaboration with other Mini-Stream students and graduate students from the QPML/NMRG.
- Contribute to all aspects of the research process with a focus on data collection and analysis.
- Present thesis work at the [Ontario Exercise Physiology Conference](#).
(Samples of published 4th year thesis work from former research mini-stream students can be found [here](#), [here](#) and [here](#))

The majority of previous graduates from the QPML/NMRG Research Mini-Stream have gone on to post graduate degrees in research, medicine and physiotherapy.

Interested applicants should submit an application package including the following:

1. A copy of the applicants CV and transcript
2. A cover letter that highlights the following:

- a. experiences relevant to working in the QMPL/NMRG
- b. a description of the characteristics and skills you possess that you believe will allow you to succeed as research intern working in the QPML/NMRG
- c. a brief discussion of your motivation for completing the Research Mini-Stream

Applicants to the Queen's Muscle Physiology Lab (QMPL) should send their applications directly to Drs. [Gurd](#) and [McGlory](#) (c.c. to watering@queensu.ca). Please title the e-mail 'Research Mini-Stream Application'.

Any questions on the application process can be sent directly to Drs. Gurd and McGlory via email.