

# **Opportunities for Research Placements for 2024-25**

## **Research-Based Practicum in Health Studies (HLTH 352/3.0) and Kinesiology (KNPE 352/3.0)**

**Application Deadline Monday, March 25<sup>th</sup> 2024 at 11:59 pm**

*Please submit applications **directly to the relevant researcher(s)** and copy (cc) Robert Watering at [watering@queensu.ca](mailto:watering@queensu.ca) on each of your e-mailed application(s). Students may submit applications to more than one faculty member. Applications should include a cover letter (either in the body of the e-mail, or as a separate document), unofficial transcript, and résumé.*

KNPE & HLTH 352/3.0 is designed to provide a research-based practicum experience for students in Kinesiology or Health Studies who may be interested in working in the research labs and on research projects of SKHS faculty members. Students will be exposed to the research process as it applies to the research area in which they have chosen to intern. This process may include, but is not limited to, data collection and analysis, literature searches, manuscript writing, presentation skills, etc.

The other primary goal of this course is to expose students to the wide variety of research ongoing within the School of Kinesiology and Health Studies at Queen's University. Therefore, in addition to at least 80 hours of hands-on work in the research environment, this course will include a seminar series covering research topics and methodologies typically utilized in the fields of Health Studies, and/or Kinesiology. These seminars will cover a wide variety of topics relevant to research in general, as well as specific areas of research currently being investigated within the SKHS including:

- Physiology of Exercise
- Biomechanics and Neuromechanics
- Epidemiology
- Health Promotion
- Psychology of Sport
- Physical Activity, Disability and Health
- Socio-Cultural Studies of Sport, Health and the Body
- Physical Activity and Health
- Nutrition

*Please note:*

1. *KNPE & HLTH 352 is a 3.0 credit unit course, but it spans both the fall and winter terms.*
2. *Students may apply for as many positions as they would like. Please remember to copy (cc.) [Robert Watering](mailto:watering@queensu.ca) on each submission.*
3. *More positions may become available prior to the application deadline, and/or later in the term. A different application deadline may accompany any new positions available, as needed.*

## **Research Summaries of Supervisors Accepting Students for 2024-25 Academic Year**

~ More positions to be added soon...

### **Dr. Elijah Bisung (Global Health Studies)**

Dr. Elijah Bisung will offer two research internship positions this year. Interns will be exposed to a broad range of potential global health research areas. On-going studies include examination of adolescent peer leadership and HIVD/AIDS education in Ghana, the role of trust in health promotion activities among marginalized groups, and “ad hoc” social welfare programs during COVID-19 and their implication for women’s health in sub-Saharan Africa.

Interested students should send a cover letter, unofficial transcript, and resume or CV to Dr. Bisung by e-mail [eb120@queensu.ca](mailto:eb120@queensu.ca) (c.c. to [watering@queensu.ca](mailto:watering@queensu.ca)).

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

Number of positions: **One** student in HLTH/KNPE 352 for 2024-25

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](mailto:jc46@queensu.ca) and Dr. Luc Martin at [luc.martin@queensu.ca](mailto:luc.martin@queensu.ca) (c.c. to [watering@queensu.ca](mailto: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. Michael Tschakovsky (Human Vascular Control Lab)**

Number of positions: Three

There are **three** research internship positions available in the Human Vascular Control Laboratory under the supervision of Dr. Michael Tschakovsky for the 2024-25 academic year.

**Human Vascular Control Laboratory Mission:** To understand the nature of mechanisms controlling blood vessels involved in adjusting exercising muscle blood flow (and thereby oxygen delivery), how disturbances and disease affect this control, and how exercise training can restore/improve this control.

Our tolerance for physical activity plays an important role in our quality of life and depends in part on how well our muscle's demand for oxygen is met. This requires that the cardiovascular system constantly adjusts blood flow to active muscles while maintaining arterial blood pressure. Accomplishing these goals requires integrated control of cardiac output with vasodilation and vasoconstriction of both exercising skeletal muscle and other vascular beds. **Basic Science Research** in our laboratory is aimed at finding answers to the fundamental questions: How is matching oxygen delivery to demand in the exercising muscle achieved? Are there important differences between individuals in the mechanisms involved in this matching and in their effectiveness? Can these mechanisms be improved by exercise training, and if so, does the type of exercise training matter?

Interns will be exposed to the research tools, approach to research question development, study design, and gain experience in data collection and analysis.

- Interested students should send a cover letter and unofficial transcript to Dr. Tschakovsky at [mt29@queensu.ca](mailto:mt29@queensu.ca) (c.c. to [watering@queensu.ca](mailto:watering@queensu.ca)). Please title the e-mail 'KNPE/HLTH 352 Research Internship Application'.

### **Dr. Jennifer Tomasone (Revved Up Research Group)**

Number of positions: Up to **three** students in HLTH or KNPE 352 for Fall/Winter 2024-2025

Dr. Tomasone is a Co-Director of the [Revved Up Research Group](#), which strives to translate research knowledge about physical activity into practical guidelines and programs that foster full and meaningful participation for all Canadians. In 2024/2025, Dr. Tomasone is seeking up to three internship students to work on two different projects:

1. **CapaCITY/É** – a large team project that aims to understand the implementation of sustainable transportation interventions in nine Canadian cities. The interns will have a variety of tasks, including the transcription and analysis of interviews with city planners/representatives, sustainable transportation intervention advocates, and policymakers across Canada, as well as editing and formatting reports for city representatives/policymakers. More information about the project is available in the [Queen's Gazette](#) and [on the study website](#). Fluency in

understanding, reading and writing in both English and French is an asset, but not required. Experience with graphic design is also an asset.

2. **Canadian Disability Participation Project (CDPP) 2.0** – a large research-community partnership that aims to make physical activity a quality experience for all persons with disabilities living in Canada. Dr. Jennifer Tomasone is one of the Co-Directors of the CDPP 2.0 and leads the group’s Mentorship Team. By 2030, the Mentorship Team will produce guidelines for creating quality research mentorship for undergraduate and graduate students with a disability. To begin to work towards this goal in 2024/2025, the Mentorship team will begin an environmental scan of Kinesiology undergraduate curricula across Canada to identify gaps in disability-related content. The interns will have a variety of tasks, including the searching for and coding course documents from different institutions, as well as transcribing and analyzing interviews with undergraduate curriculum coordinators from different institutions.

The successful interns will work closely with graduate students and/or post-doctoral fellows from the Revved Up lab.

Interested students should send a cover letter, unofficial transcript and a resume/CV to Dr. Tomasone ([tomasone@queensu.ca](mailto:tomasone@queensu.ca)). Please title the email “KNPE/HLTH352 Research Internship Application” (c.c. to [watering@queensu.ca](mailto:watering@queensu.ca)).

### **Dr. Gerome Manson– Fall/Winter KNPE or HLTH 352/491/595**

The **Sensorimotor Exploration Lab** (colloquially known as SMEL) is a neuromechanics lab in the School of Kinesiology and Health Studies at Queen’s University. We study the processes underlying the planning, control, and learning of skilled movement in both neurologically-healthy and neurologically-impaired populations (e.g., spinal cord injury, multiple sclerosis, spinal muscle atrophy). Our scientific work is at the intersection of kinesiology, psychology, engineering, systems neuroscience, and rehabilitation. Our lab thrives because of the diversity and commitment of our members, and we welcome new members from diverse academic and cultural backgrounds.

Interested students should contact Dr. Gerome Manson ([gm99@queensu.ca](mailto:gm99@queensu.ca)) with a cover letter, unofficial transcript, and a resume/CV (c.c. to [watering@queensu.ca](mailto:watering@queensu.ca)). The cover letter should indicate one’s interest in one of the research themes outlined on the [lab webpage](#).

**IMPORTANT NOTE:** We invest heavily in our undergraduate members and students who have joined the lab previously have moved on to positions in graduate school, medicine, physiotherapy, and occupational therapy (see lab alumni on website). Undergraduate students have also engaged in the publication of research articles and have presented at national (in Montreal and Toronto) and international conferences in France (see lab website). This level of achievement requires a lot of time and dedication associated with learning new skills and techniques. While high marks (e.g., greater than an A or 80%) are possible, they are relatively hard to achieve in this research experience. Please consider this when applying and we look forward to hearing from you.

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

Number of positions: 1

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.

Possible research projects are:

- Developing a real-time biofeedback training system for gait rehabilitation of lower limb amputees
- Comparison of marker-less and marker-based motion capture systems
- Investigating the effect of electrical stimulation parameters on muscle forces and pain

Interested students should send a cover letter, an unofficial transcript, and their resume to me at [p.amiri@queensu.ca](mailto:p.amiri@queensu.ca) (c.c. to [watering@queensu.ca](mailto:watering@queensu.ca)). Please use “KNPE/HLTH 352 Research Internship Application” in the subject line.

### **Dr. Bob Ross (Lifestyle and Cardiometabolic Research Lab)**

Number of positions: Up to two students

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](mailto:rossr@queensu.ca) (copy to [watering@queensu.ca](mailto:watering@queensu.ca) ).

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

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 2024-25 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. **Impacts of climate change on non-communicable disease** risks, management and coping mechanisms on people living with NCDs. Example of tasks include conducting literature reviews, transcription, qualitative and quantitative data analysis.
3. **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](mailto:jk191@queensu.ca) (c.c. to [watering@queensu.ca](mailto:watering@queensu.ca)).