### BHSc Research Practicum – 2017-18 – Available Projects

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Investigator(s)</th>
<th>Faculty Name</th>
<th>Project Code</th>
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<tr>
<td>Abilities Centre Program Evaluation</td>
<td>Tara Joy Knibbe Manager, Research &amp; Program Evaluation, Abilities Centre</td>
<td>Abilities Centre</td>
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<tr>
<td>Evaluating the implementation of electronic dietary assessment tools in primary care</td>
<td>Dr. JoAnne Arcand, Faculty of Health Sciences</td>
<td>Arcand – Project #1</td>
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<tr>
<td>Barriers and facilitators to the implementation of dietary guidelines for patients with hypertension</td>
<td>Dr. JoAnne Arcand, Faculty of Health Sciences</td>
<td>Arcand – Project #2</td>
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<tr>
<td>Exercise Physiology: Asthma or Aging</td>
<td>Dr. Shilpa Dogra Faculty of Health Sciences</td>
<td>Dogra – Project #1</td>
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<tr>
<td>Integrated Stroke Unit (ISU) – Implementation and Outcomes</td>
<td>Natascha Kozlowski Director of Research, Lakeridge Health</td>
<td>Lakeridge Project #1 (ISU)</td>
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<tr>
<td>Paediatric Cardiac Arrest at a Community Hospital</td>
<td>Natascha Kozlowski Director of Research, Lakeridge Health</td>
<td>Lakeridge Project #2 (PCA)</td>
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<tr>
<td>Discharge Support Meetings in the Older Adult Population</td>
<td>Janice Jones Nurse Practitioner, Lakeridge Health</td>
<td>Lakeridge Project #3 (JJ)</td>
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<tr>
<td>Kidney Quality of Life of Peritoneal Dialysis Patients and the Impact on Nursing Processes and Workload</td>
<td>Christina Vaillancourt Patient Care Manager, Lakeridge Health</td>
<td>Lakeridge Project #4 (KQOL)</td>
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<tr>
<td>Sports Officials’ Motivations for Participation and Perceptions of Organizational Support</td>
<td>Dr. Lori Livingston &amp; Dr. Susan Forbes, Faculty of Health Sciences</td>
<td>Livingston-Forbes - Project #1</td>
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<td>Behavioural Changes in children with Autism Spectrum Disorder with a motor skill intervention</td>
<td>Dr. Meghann Lloyd Faculty of Health Sciences</td>
<td>Lloyd – Project #1</td>
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<td>Neck function and multi-sensory integration</td>
<td>Dr. Bernadette Murphy Faculty of Health Sciences</td>
<td>Murphy – Project #1</td>
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<td>Neck function and control of arm movement</td>
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<td>Does treatment of recurrent neck pain improve sensorimotor integration?</td>
<td>Dr. Bernadette Murphy Faculty of Health Sciences</td>
<td>Murphy – Project #3</td>
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<td>Lung Health Pathway in the Paediatric Critical Care Unit at the Hospital for Sick Children</td>
<td>Dr. Mika Nonoyama Faculty of Health Sciences</td>
<td>Nonoyama – Project #1</td>
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<tr>
<td>Dr. Obidimma Ezezika</td>
<td>A review of cultural influence on adolescents’ dietary intake in Sub Sahara Africa</td>
<td>Obidi – Project #1 (Nutrition)</td>
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<td>Dr. Obidimma Ezezika</td>
<td>Lessons from for scaling up health technologies in developing countries: A review</td>
<td>Obidi – Project #2 (Technologies)</td>
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<tr>
<td>Dr. Alexandra Hernandez</td>
<td>An active study in mental health and geriatrics, forensics or adolescent departments at Ontario Shores</td>
<td>Ontario Shores Projects</td>
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<tr>
<td>Dr. Winnie Sun</td>
<td>Living Well with Dementia</td>
<td>Sun – Project #1</td>
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<tr>
<td>Dr. Nick Wattie</td>
<td>The developmental history of high performance athletes</td>
<td>Wattie – Project #1 (History)</td>
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<tr>
<td>Dr. Nick Wattie</td>
<td>The influence of individual and contextual constraints on the acquisition of perceptual cognitive skills and performance.</td>
<td>Wattie – Project #2 (SPARC)</td>
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Research Practicum
HLSC 4998U & HLSC 4999U
Fall 2017 - Winter 2018

Name of Research Tutor: Tara Joy Knibbe
Manager, Research & Program Evaluation, Abilities Centre

Number of Possible Positions: 2

Name of Project: Abilities Centre Program Evaluation

Project location: Abilities Centre, Whitby

Project Description:
Abilities Centre is a charitable organization that delivers enriching sports, fitness, arts and life skills opportunities for people of all ages and abilities. Located in Whitby, the Centre features a 125,000 square foot, state-of-the-art, fully accessible facility. Since opening its doors in June 2012, Abilities Centre has combined barrier-free navigation and access with inclusive and innovative programs. Recognized as an International Centre of Excellence, the Centre serves local, national and international communities by providing resources and research tools that promote inclusivity and accessibility, while enhancing quality of life.

This project will involve completing an evaluation of an existing Abilities Centre program (to be determined following discussion of the student’s interests and current AC priorities). Regular program evaluation is essential to our planning process as it ensures participants are meeting their goals and achieving desired outcomes within the scope of the program. As part of the evaluation process, this project may involve, identifying program goals/ outcomes, determining appropriate tools for measurement, conducting assessment (potential for qualitative assessment), analyzing findings, and preparing a final report. Depending upon the timing of the selected program (e.g., ongoing spin class, 12-week boot camp, youth conditioning course), pre/post measures and/or qualitative inquiry may be introduced. The final report will include participant feedback as well as recommendations to improve the existing program or develop new and innovative opportunities.

Possible Roles for Student(s):
- Research existing assessment tools
- Assist with development of survey
- Administer assessment tool/ survey
- Analyze responses
- Prepare final report
- Present findings to Abilities Centre staff or members

Special Requirements: (i.e. Entry Immunization Form, Police Check, specialized skills etc..)
- Police Check will be required
The following are not required, but would be considered to be an asset:
  - Ability to work independently
  - Experience or interest in working with community members with a wide range of abilities
**Name of Research Tutor:** Dr. JoAnne Arcand  
**Number of Possible Positions:** 1

**Name of Project:** Evaluating the implementation of electronic dietary assessment tools in primary care

**Project location:** Primary care clinics in the Durham Region

### Project Description:
The purpose of this research study is to determine the most feasible method of implementing a web-based dietary sodium assessment tool (Sodium Calculator) into primary care. This study will take place in two primary care clinics in the Durham region where 16-20 physicians will implement the Sodium Calculator with hypertensive patients using 3 different methods. This study will be conducted using a mixed methods study design, where both quantitative data and qualitative data will be collected.

**Why is this important and innovative research?**
There is strong evidence to support the causal relationship between a high sodium diet and hypertension, a risk factor for both cardiovascular and cerebrovascular diseases. Still, the average Canadian consumes over double the recommended adequate intake. Therefore, there is great need to increase awareness and knowledge surrounding individual sodium consumption through new and innovative sodium reducing interventions. A web-based dietary assessment tool, the Sodium Calculator, was developed in order to provide education and personalized feedback surrounding sodium intake based on frequency and quantity of high sodium foods. However, the best way to implement the Calculator needs to be determined in order to maximize its impact on sodium reduction, as well as to influence policy for adaption of web-based tools into busy primary care settings.

### Possible Roles for Student(s):
The student will work as part of a research team on this project. I will work with the student to generate a research question for this practicum, based on student interests. The student will be responsible for collecting and analyzing the data associated with their research question.

**Special Requirements:** (i.e. Entry Immunization Form, Police Check, specialized skills etc..)  
N/A
**Name of Research Tutor:** Dr. JoAnne Arcand  
**Number of Possible Positions:** 1

<table>
<thead>
<tr>
<th>Name of Project:</th>
<th>Barriers and facilitators to the implementation of dietary guidelines for patients with hypertension</th>
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<tbody>
<tr>
<td>Project location:</td>
<td>University of Ontario Institute of Technology, Oshawa, Canada</td>
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</table>

**Project Description:**
This study is a cross-sectional survey that will be administered electronically to physicians identify internal (i.e., knowledge, attitudes, behaviors/actions) and external (i.e., compensation, health system factors) barriers and facilitators to physician-implementation of nutrition guidelines for patients with hypertension who are managed in primary care. The secondary objective is to identify the determinants (i.e., geographic location, gender) of the implementation of nutrition guidelines for patients with hypertension in primary care. The sample will include primary care physicians working in Canada.

**Importance:**
Identifying barriers and facilitators to physician-implementation of nutrition guidelines will help inform new interventions that can be implemented to assist physicians in providing nutritional care to patients.

**Possible Roles for Student(s):**
The student will work as part of a research team on this project. I will work with the student to generate a research question for this practicum, based on student interests. The student will be responsible for collecting and analyzing the data associated with their research question.

**Special Requirements:** (i.e. Entry Immunization Form, Police Check, specialized skills etc..) N/A.
# Research Practicum Form

To be completed by Research Tutor

(please submit to [Michelle.Sutcliffe@uoit.ca](mailto:Michelle.Sutcliffe@uoit.ca) by February 3, 2017)

<table>
<thead>
<tr>
<th>Name of Research Tutor:</th>
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<tbody>
<tr>
<td>Shilpa Dogra</td>
<td>2</td>
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<tr>
<td>Name of Project:</td>
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<tr>
<td>Exercise Physiology:</td>
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<tr>
<td>Asthma or Aging</td>
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<tr>
<td>Project location:</td>
<td>UOIT</td>
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**Project Description:**
The student will be involved with research in the area of exercise physiology, aging and/or asthma.

**Possible Roles for Student(s):**
Exercise testing, exercise prescription, data collection, data analysis, and writing.

**Special Requirements:** (i.e. Entry Immunization Form, Police Check, specialized skills etc.)
Preference will be given to students with proven practical competencies (eg. certifications or advanced courses in exercise testing/prescription).
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<thead>
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<tr>
<td>Natascha Kozlowski</td>
<td>1</td>
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<tr>
<td>Director of Research, Lakeridge Health</td>
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<td>Integrated Stroke Unit (ISU) – Implementation and Outcomes</td>
<td>Lakeridge Health, Oshawa</td>
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</table>

**Project Description:**

The Integrated Stroke Unit (ISU) at Lakeridge Health Oshawa was established approximately 5 years ago. The ISU manages both the acute care needs of patients who have had a stroke and, as soon as they are ready and appropriate for rehabilitation, move them right into the intensive rehabilitation program.

A research-based evaluation and knowledge translation of the impact that the ISU has had on our patients and organization has not yet been done. This will be a multi-methods project looking at patient outcomes and other key impact factors pre- and post- implementation of the ISU. It is anticipated that the outcomes of this research study will help key stakeholders and other organizations understand the importance for building an ISU at a community hospital.

**Possible Roles for Student(s):**

- Assisting with protocol design
- Submission to Research Ethics Board(s)
- Working with stakeholders
- Data capture form design
- Data abstraction and collection
- Knowledge Translation – dissemination of results
- Creation of poster and presentation

**Special Requirements:** (i.e. Entry Immunization Form, Police Check, specialized skills etc.)

Will need to meet Lakeridge Health’s Occupational Health requirements including TB testing requirements.
Name of Research Tutor: Natascha Kozlowski  
Number of Possible Positions: 1

Name of Project: Paediatric Cardiac Arrest at a Community Hospital

Project location: Lakeridge Health, Oshawa

Project Description:

Location of cardiac arrest is predictive of morbidity and mortality. Cardiac arrests are broadly classified as in hospital or out of hospital cardiac arrests. While cardiac arrest in the paediatric population is relatively rare, they are nevertheless devastating and there are critical factors that influence survival. This will be a retrospective review of pediatric cardiac arrest at a community hospital, looking at patient outcomes and other key factors.

Possible Roles for Student(s):
- Assisting with protocol design
- Literature review
- Submission to Research Ethics Board(s)
- Working with stakeholders
- Data capture form design
- Data abstraction and collection
- Knowledge Translation – dissemination of results
- Creation of poster and presentation

Special Requirements: (i.e. Entry Immunization Form, Police Check, specialized skills etc..)

Will need to meet Lakeridge Health’s Occupational Health requirements including TB testing requirements.
### Name of Research Tutor:
Janice Jones / Julie Earle

### Number of Possible Positions:
1

### Name of Project:
Discharge Support Meetings in the Older Adult Population

### Project location:
Lakeridge Health Whitby Rehab Unit (3rd floor)

### Project Description:
Looking at the Older Adult Population in the rehab setting; “Do Discharge Support Meetings (DSMs) improve patient and family satisfaction? Do DSMs contribute to better outcomes post discharge home? Do DSMs prevent readmit to hospital or keep the patient in their home longer?”

The research team consists of 2 Nurse Practitioners, Physiotherapist, Occupational Therapist and the Unit Manager. The Rehab unit consists of 26 bed inpatient unit. Patients often have had long hospital stays with complex medical conditions, fractures with surgical repair, or admit from community requiring therapy to improve mobility. Length of stay varies from 2-6 weeks.

### Possible Roles for Student(s):
- Further development and final research question
- Literature Review
- Admission criteria for study
- Development of consent form (If needed based on final question)
- Submission to Lakeridge Health ethics committee for approval (If needed)
- Gather data and summarize results
- Final Report
- Poster Presentation
- Possible Conference Presentation

### Special Requirements:
(i.e. Entry Immunization Form, Police Check, specialized skills etc..)
- Lakeridge Health Confidentiality Agreement
- Lakeridge Health requirements as needed
Project Description:

Home Peritoneal Dialysis (PD) programs provide education and supportive care to patients requiring dialysis. Home Dialysis supports patients to be independent and complete their dialysis in their home. The Lakeridge Health PD program currently provides education, care and support to approximately 80 adult patients. This cohort of patients in similar to the province in regards to gender. The average age of the LH population is slightly older (average age 69.2 yrs versus provincial average of 63.6 years) with a higher % living with diabetes (58.7 % versus 48.2%). Additionally the LH population has more patients (55.6% compared to 39.5%) with albumins within normal range and more pts (56.4% versus 52.9%) with a target A1C range. The program staffing is comprised of 5 full time nurses and dedicated support from a nephrologist, pharmacist, social work, dietitian and secretary. The program operates daily- Monday to Friday. Evening and weekend support is by the nephrologist on call. Currently the LH PD program is located at the Whitby site.

Peritoneal Dialysis is associated positive patient outcomes such as improved well-being and quality of life. This type of dialysis allows patients freedom in regards to when their treatment is done e.g. time of day and location (allows for travel). It is often the choice of therapy for those who are still working, have an active life or those that cannot or do not wish to report to the hospital 3 times per week for a 4-5 hour hemodialysis treatment. Peritoneal Dialysis also has benefits to the overall healthcare system as the costs associated with PD are less than the costs of providing in-centre hemodialysis treatments.

Recently the nurses of the PD program have noted an increase in the complexity of care related to the psychosocial status of the patients. This reported increased need for emotional and mental support is impacting nursing processes and workload. Currently a staffing ratio of 1 nurse to 25 patients is utilized. PD caseloads are currently evaluated and modified based on the number of overall patients, number of patient accessing support for CELHIN Community Care Access Center, and the number of patients with the additional diagnoses of diabetes. The evaluation process does not consider the psychosocial needs of the patients.
The KQOL (Kidney Disease Quality of Life) survey is a validated assessment tool. The survey assesses a patients’ perceived physical, mental and emotional health, the burden of kidney disease in their daily life and the effects of kidney disease on daily life. It is currently used broadly in the united States to assess patient quality of life and assess workload and inform staffing processes.

This project will seek to describe the current PD patient cohort in regards to Quality of life and compare KDQOL scores with the workload of the nurses (e.g. number of emergency department visits, peritonitis rates, home visits, frequency of contact with home unit). The learnings from this project will be utilized to improve caseload assignment.

Possible Roles for Student(s):
Prepare REB application
Consent patients, facilitate patient completing KDQOL surveys and complete scoring
Chart audit to gather information regarding support provided by PD nurse
Work with PD nurses to create a program model survey. The survey will be send to the PD programs in Ontario.
Analysis data and write final report
Present findings to department

Special Requirements: (i.e. Entry Immunization Form, Police Check, specialized skills etc..)
- Need to complete LH student requirements- e.g. confidentiality, immunization etc.
- Comfortable working in a medical care area (may see blood or witness clients being acutely ill)
- Comfortable with interacting with clients and have excellent communication skills
- Proficient in Word, Excel, Power point, Survey Monkey™
- Comfortable with public speaking and presentations
- Self-directed, independent and have excellent time management skills
- Note PD patients attend clinics on Tuesdays- during patient survey phase of project, student must be able to attend clinics between the hours of 8-4.
Name of Research Tutors: Dr. Lori Livingston & Dr. Susan Forbes  
Number of Possible Positions: 2

Name of Project: Sports Officials’ Motivations for Participation and Perceptions of Organizational Support

Project location: UOIT

Project Description: Drs. Livingston and Forbes have collected data from more than 1000 active and 400 inactive sports officials from across Canada with a goal of understanding their motivations to enter into and remain active in the role, their perceptions of the support they received from their officiating administrations, and their psychological resilience. Results for the entire sample of active officials have recently been published (see Livingston, L.A., & Forbes, S.L. (2016). Factors contributing to the retention of Canadian amateur sport officials: Motivations, perceived organizational support, and resilience. *International Journal of Sport Science & Coaching, 11*(3), 342-355.) Within these data sets, large subsets of data from selected sports (e.g., basketball, swimming, soccer, and others) require further analysis. Such analysis would include completing a review of the literature, quantitative and qualitative analysis of the data set, and writing the first draft of a paper to describe the findings.

Possible Roles for Student(s): We are seeking two (2) highly motivated individuals to participate in the analyzing and reporting on these data sets. Students will be given the opportunity to select a data set (from a pre-determined list) and to assist in (a) completing an up-to-date review of the officiating literature relative to the chosen data set; (b) assisting in analyzing the quantitative data using SPSS; (c) assisting in analyzing the qualitative data; and (d) assisting with the writing a manuscript for publication. Students will have the opportunity to receive co-authorship on any papers or presentations emanating from their efforts.

There may also be opportunities for students to assist with meeting and conference organization activities and to accompany their research mentors to meetings with their community collaborators in the Greater Toronto Area.

Special Requirements: (i.e. Entry Immunization Form, Police Check, specialized skills etc..): A minimum grade of A- in HLSC 3800 and HLSC 3910. Experience with SPSS would be an asset.
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<th>Name of Research Tutor: Meghann Lloyd</th>
<th>Number of Possible Positions: 1-2</th>
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<tr>
<td>Name of Project: Behavioural Changes in children with Autism Spectrum Disorder with a motor skill intervention</td>
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<tr>
<td>Project location: UOIT – St. Gregory’s building (202 Simcoe St)</td>
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**Project Description:**
Children with Autism Spectrum Disorder experience behavioural challenges in addition to poor motor skills. The purpose of this project is to intervene on fundamental motor skills (running, throwing, kicking, catching, etc) and evaluate whether gains are made in both motor skill proficiency but also in areas such as adaptive behaviour and social skills.

**Possible Roles for Student(s):**
- Participating in the intervention (i.e. leading groups of kids with ASD in teaching and practicing motor skills)
- Video coding behavioural data on new NOLDUS behavioural software
- Data entry
- Data analysis
- Participating in pre-testing and post-testing of participants

**Special Requirements:** (i.e. Entry Immunization Form, Police Check, specialized skills etc..)

- Police Check (vulnerable sector)
- Must be a kinesiology student (i.e. completed Human Growth and Motor Development)
### Name of Research Tutor:
Bernadette Murphy

### Number of Possible Positions:
3

### Name of Project:
Neck function and multi-sensory integration

### Project location:
UOIT Human Neurophysiology lab

### Project Description:
Neck pain and stiffness is often linked to pain and fatigue in the upper limb. One hypothesis is that the altered sensory input due to neck dysfunction affects the way the brain processes incoming sensory input from the upper limb leading to altered motor function, which then initiates a cycle of pain and fatigue. There are also suggestions that it may affect how the brain integrates information from other senses such as vision and hearing along with information from the somatosensory systems. This project aims to develop and test protocols to investigate multi-sensory integration in neck pain patients and healthy controls.

### Possible Roles for Student(s):
Students who participate in this project will assist Dr. Murphy in recruiting and testing participants, as well as performing data analysis. They will:
1. acquire skills in collecting electromyographic (EMG) data.
2. Acquire skills in programming in E-prime software to design experiments to test multi-modal integration.
3. Acquire skills in using somatosensory evoked potentials (SEPs) to study sensory processing by the brain.
4. acquire skills in data analysis of EMG and SEP data.
5. build on skills in statistical analysis and data presentation.
6. develop skills in communicating with research participants, and explaining the project to obtaining informed consent.

### Special Requirements:
Students in the kinesiology stream who have strong grades in Introduction to Movement Science, and Human Anatomy and are currently enrolled in Human Motor Control and Learning, are eligible to apply.
Name of Research Tutor: Bernadette Murphy
Number of Possible Positions: 2

Name of Project:
Neck function and control of arm movement

Project location: UOIT Human Neurophysiology lab

Project Description: Neck pain and dysfunction is often linked to pain and fatigue in the upper limb. One hypothesis is that the changes in sensory input due to neck dysfunction affects the way the brain processes incoming sensory input from the upper limb leading to altered motor function, which then initiates a cycle of pain and fatigue. The aim of the current study is to understand how neck muscle fatigue affects motor processing using transcranial magnetic stimulation (TMS), a technique for stimulating the brain to activate distal muscles. Processing of motor input from the upper limb muscles will be investigated following neck muscle fatigue.

Possible Roles for Student(s):

Students who participate in this project will assist in recruiting and testing participants, as well as performing data analysis. They will:
1) acquire skills in collecting EMG data.
2) Acquire skills in using TMS to excite the motor cortex to activate muscle
3) acquire skills in data analysis of EMG and TMS data
4) build on skills in statistical analysis and data presentation
5) develop skills in communicating with research participants, and explaining the project to obtaining informed consent

Special Requirements:
Students in the kinesiology stream who have completed Anatomy and Introduction to Movement Science and are enrolled in or completing Motor Control with strong grades are eligible to apply.
Name of Research Tutor: Bernadette Murphy  
Number of Possible Positions: 2

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<tr>
<th>Name of Project:</th>
<th>Does treatment of recurrent neck pain improve sensorimotor integration?</th>
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**Project Description:** Neck pain and dysfunction is often linked to pain and fatigue in the upper limb. One hypothesis is that the changes in sensory input due to neck dysfunction affects the way the brain processes incoming sensory input from the upper limb leading to altered motor function, which then initiates a cycle of pain and fatigue. The aim of the current study is to understand how treatment of neck dysfunction using spinal manipulation alters sensorimotor integration and motor control.

**Possible Roles for Student(s):**

Students who participate in this project will assist in recruiting and testing participants, as well as performing data analysis. They will:

1) acquire skills in collecting EMG data.
2) Acquire skills in using TMS to excite the motor cortex to activate muscle and/or skills in using somatosensory evoked potentials (SEPs) to study sensory processing by the brain
3) acquire skills in data analysis of EMG and TMS data and/or acquire skills in data analysis of EMG and SEP data
4) build on skills in statistical analysis and data presentation
5) develop skills in communicating with research participants, and explaining the project to obtaining informed consent

**Special Requirements:**
Students in the kinesiology stream who have completed Anatomy and Introduction to Movement Science and are enrolled in or completing Motor Control with strong grades are eligible to apply.
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<th>Name of Research Tutor:</th>
<th>Mika Nonoyama</th>
<th>Number of Possible Positions:</th>
<th>One</th>
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<td>Name of Project:</td>
<td>Lung Health Pathway in the Paediatric Critical Care Unit at the Hospital for Sick Children</td>
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<td>Project location:</td>
<td>Hospital for Sick Children (SickKids)</td>
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### Project Description:
The Lung Health Pathway at SickKids’ paediatric critical care unit (PCCU) comprises of: artificial airway management; initiation & weaning from mechanical ventilation (MV); extubation; & post-extubation respiratory management. A better understanding of current respiratory support clinical practices & patient outcomes is needed to optimize a child’s treatment path. Data will be collected retrospectively on patients admitted into the PCCU & placed on MV. Our primary objective is to determine the length & decision criteria for the different therapies & the various transition points to help inform practice change.

### Possible Roles for Student(s):
- Data extraction and cleaning; aiding with data analysis and interpretation; help with protocol development and research ethics board submission at SickKids and UOIT; help with writing of final publication; collaborate with graduate student(s).
- There may also be opportunity for students to do a buddy shift in the Critical Care Unit at SickKids (together with staff respiratory therapists).

### Special Requirements: (i.e. Entry Immunization Form, Police Check, specialized skills etc.)
**REQUIRED:**
- Minimum B+ in HLSC3910 (research methods);
- Must be able to work at SickKids for the duration of the research practicum (which requires entry immunizations, police check, mask fit and initial orientation at the hospital).

**ASSETS:**
- Experience working with electronic information systems (hospital based preferred) & with data organization;
- Experience working with Microsoft Office, especially Excel;
- Knowledge of respiratory physiology and pathophysiology.
Name of Research Tutor: **Obidimma Ezezika**  
Number of Possible Positions: 1  

| Name of Project: **A review of cultural influence on adolescents’ dietary intake in Sub Sahara Africa** |
| Project location: Faculty of Health Sciences, UOIT |

Unhealthy eating among youth is a global, public health challenge with rising concerns voiced over the increase in overweight and obese youth. Once seen as an exclusive challenge of high-income countries, rates of obesity and overweight are now escalating in low- and middle-income countries, particularly in sub-Saharan Africa and have more than doubled since 1980. The prevalence of overweight and obesity constitute a major risk factor in the rise of non-communicable diseases (NCDs) such as cardiovascular diseases, diabetes and some cancers. According to the World Health Organization (WHO), NCDs will be responsible for a significantly increased total number of deaths in the next decade. A large growth is projected to take place in the African region, where NCD-related deaths will increase by over 20% (leading to 3.9 million deaths) by 2020. Many parts of sub-Saharan Africa are experiencing a rapid shift in dietary patterns from consuming a traditional diet high in cereals, fiber, fruits and vegetables to a more Western diet consisting of foods high in sugar, fat, salt, and animal proteins. This trend is affecting a significant number of adolescents comprising approximately 33% (i.e. 344.4 million people) of the population in sub-Saharan Africa, and this demographic group is set to double in population to reach 605 million youths by 2050. For example in some parts of In West Africa, unhealthy eating starts as early as 6 months old with parents feeding their children with sweetened pap and sugary snacks. As children get older, their consumption of fruits and vegetables is also inadequate. One of the steps in tackling some of these challenges in sub Sahara Africa is to understand the factors that determine adolescent nutrition within the region.

Possible Roles for Student(s):
- Conduct a summary of the literature on influences of dietary intake in sub Sahara Africa
- Systematic review of the known cultural influences on dietary intake with respect to adolescents.

Special Requirements: (i.e. Entry Immunization Form, Police Check, specialized skills etc..)
- Strong passion for global health
- Ability to work with a virtual team
- Experience in conducting literature reviews
- Ability to learn quickly and creative
- Excellent writing skills
- Electronic Access to the UOIT library
The scaling up of health technologies is attracting a great deal of attention in global health. The challenges of developing, introducing, and scaling up health technologies are innumerable and can be a daunting endeavor. Many activities are required, across many countries, and with many actors. There have been a number of successes of scaling health technologies in developing countries. For example, the meningitis Vaccine Project which reached 100 million people within 2 years of initial regulatory approval. What makes such projects succeed? The goal of this research practicum is to conduct a review of cases on scale-up of health innovations in developing countries in order to delineate the key determinants for success. In other words, what are the key factors that determine which technologies reach more people, more quickly and more sustainably in developing countries.

Possible Roles for Student(s):
- Conduct a qualitative literature review to identify determinants that influence adoption of health technologies in developing countries.
- Searching for systematic reviews of scale-up in health care and reviewing those bibliographies. Including reviewing common research databases (PubMed, Google Scholar).

Special Requirements: (i.e. Entry Immunization Form, Police Check, specialized skills etc..)
- Passion for global health
- Ability to work with a virtual team
- Experience in conducting literature reviews
- Ability to learn quickly and creative
- Strong passion for global health
- Excellent writing skills
- Electronic Access to the UOIT library
**Name of Research Tutor:**
Dr. Alexandra Hernandez (& researchers in the hospital)

**Number of Possible Positions:**
Up to 9

**Name of Project:** An active study in mental health and geriatrics, forensics or adolescent departments at Ontario Shores

**Project location:** Ontario Shores Centre for Mental Health Sciences

**Project Description:**
There are currently over 30 active research studies at Ontario Shores related to mental health with particular emphasis on geriatric, forensic, and adolescent populations. Students will be paired with a research tutor and research lead(s) at Ontario Shores and gain a variety of experience from conceptualization of a research idea to its execution. Some examples of active studies include: (1) Examining the use of iPad Games as Meaningful Engagement in Dementia Care, (2) Risk Assessment and Factors Associated with Aggression and Violence in Forensic (3) Dynamic Appraisal of Situational Aggression (DASA): A Validation Study, (4) The Prevalence of Autism Spectrum Disorder (ASD) in an Inpatient Psychiatric Population, (5) A Visual Scanning Approach to Assess Selective Attention in Adolescents with Eating Disorders (6) The use of Hand-held Electronic Devices to Aid Functional Abilities and Recovery in Neuropsychiatric Clients, (7) A Clinical Trial Investigating a Novel Psychotherapy for Anxiety in Adolescent, (8) Loneliness in the Cognitively Impaired, and (9) The impact of a dementia-friendly environment on recovery-related outcomes.

**Possible Roles for Student(s):**
Depending on project, students’ interests and abilities, they may participate in the following:
- Conducting literature searches
- Synthesizing literature
- Writing research protocols
- Consenting clients
- Collecting data
- Inputting data
- Data analysis
- Writing up results for presentations or publications

**Special Requirements:**
- An original copy of the Criminal Record Check (CPIC) including vulnerable sector screening (no older than 6 months prior to practicum placement)
- Applicant must be up-to-date with their immunizations (i.e. including 2-stage TB test; flu shot recommended)
- Ontario Shoes Mandatory Education must be completed prior to/at the start of placement
- TCPS-2 and McMaster Ethics tutorials will also be required
Name of Research Tutor: Dr. Winnie Sun  
Number of Possible Positions: 1

Name of Project: “Living Well with Dementia”

Project location: UOIT and Alzheimer’s Society of Durham Region

Project Description:
The purpose of this study is to evaluate the project entitled, ‘Living Well with Dementia,’ designed by the Alzheimer Society of Durham region to reduce social isolation for persons with dementia and their caregivers through the development of social/recreational programming; an intervention that is being co-facilitated by community volunteers.

In this evaluation we primarily will be using individual in-depth interviews lasting approximately one hour each to collect data. Persons living with dementia, their caregivers and volunteers will participate in one-on-one interview with the researcher and complete a brief demographics questionnaire with the interviewer prior to the start of interview. During this interview, the participants will answer a series of open-ended questions regarding their experiences of the Alzheimer Society of Durham Region programs.

Possible Roles for Student(s):
- Participate in the research team meetings that take place at UOIT or ASDR under the direction of the project supervisors
- Attend research project-related training and orientations at ASDR
- Work on the multiple aspects of research projects: (1) Conduct literature reviews; (2) Assist ASDR with the recruitment process and obtain informed consents from study participants; (3) Engage in one-on-one qualitative interviews with persons with dementia, caregivers and volunteers at ASDR; (4) Assist in qualitative data analysis and interpretation; (5) Perform transcriptions for qualitative interviews (6) Assist in quantitative data management, including statistical database creation and analysis; (7) carry out knowledge translation activities, such as providing assistance in the development of manuscript for publication.

Special Requirements: (i.e. Entry Immunization Form, Police Check, specialized skills etc..)
- Experience/interest in the field of Gerontology and Community Health with particular focus on persons with dementia
- Experience in conducting literature review, and preparation of reports and research related materials
- Experience with qualitative research and interviewing with persons living with cognitive impairment would be assets
- Ability to manage the statistical data analysis software, such as SPSS
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<tr>
<th>Name of Research Tutor: Dr. Nick Wattie</th>
<th>Number of Possible Positions: 1 or 2</th>
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<tr>
<td>Name of Project: The developmental history of high performance athletes</td>
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<td>Project location: Sport &amp; Physical Activity Research Collaborative (SPARC)</td>
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**Project Description:**
The purpose of this project will be to compare the different developmental histories of athletes (e.g., the unique developmental pathways to reaching the highest levels of sport). This project will compare the different pathways and athlete histories as it relates to the likelihood of reaching elite levels of sport and to variations in career success at the highest level of sport.

**Possible Roles for Student(s):**
Students will be responsible helping to get ethical approval for the study, for collecting, coding, and analyzing data and for writing up the results of the study.

**Special Requirements: (i.e. Entry Immunization Form, Police Check, specialized skills etc..)**

In addition to their application, students must meet with Dr. Wattie prior to Research Practicum approval. Students should be skilled in excel and familiar with SPSS. Students will also be expected to actively participate in Dr. Wattie’s lab meetings (with graduate students and research assistants).
Name of Research Tutor: Dr. Nick Wattie | Number of Possible Positions: 1 or 2

Name of Project: The influence of individual and contextual constraints on the acquisition of perceptual cognitive skills and performance.

Project location: Sport & Physical Activity Research Collaborative (SPARC)

Project Description:
The purpose of this project will be to test the influence of different psychological beliefs about abilities as well as contextual constraints, on perceptual cognitive skills (i.e. gaze behaviour) and performance. The performance task for this study will involve a dart board in a lab environment.

Possible Roles for Student(s):
Students will be responsible helping to get ethical approval for the study, for recruiting and coordinating (with a graduate student) participants, as well as collecting, coding, and analyzing data and for writing up the results of the study.

Special Requirements: (i.e. Entry Immunization Form, Police Check, specialized skills etc..)
In addition to their application, students must meet with Dr. Wattie prior to Research Practicum approval. Students should be skilled in excel and familiar with SPSS. Students will also be expected to actively participate in Dr. Wattie’s lab meetings (with graduate students and research assistants).