

## KIN482B

### Advanced Seminar in Neuromechanics

#### Exercise Management of Chronic Neurological Balance and Mobility Conditions

*UBC's Vancouver Campus is located on the traditional, ancestral, and unceded territory of the xwməθkwəy̓əm (Musqueam) people. The land it is situated on has always been a place of learning for the Musqueam people, who for millennia have passed on in their culture, history, and traditions from one generation to the next on this site.*

**Course Structure:** Work-integrated Learning

**Instructor:** Dr. Mark G. Carpenter

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**Co-instructor and Placement supervisor:** Sally-Anne Stelling, PT

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**Office:** BC Brain Wellness Program & UBC Physical Therapy & Research Clinic

### **Group Meetings:**

Mondays 4:30 – 6:00 pm

### **Course Description**

Opportunity to gain hands-on experience working within an inter-professional health team to assess and rehabilitate neurological balance and mobility deficits using evidence-based group, and individualized, exercise programming. Students will have the opportunity to assist in the delivery of in-person exercise-based rehabilitation through the Physical Therapy Rehabilitation Clinic (PTRC) and/or the BC Brain Well Program (BWP). In the PTRC students will be trained, in particular, to deliver the Fitness and Mobility Exercise Program (FAME), a group exercise program for people after Stroke. In the BWP, students will assist with in-person exercise classes for individuals with acquired or degenerative neurological disorders targeting in the areas of aerobic, agility, strength, and balance. In addition to in-person classes all students will be involved in the delivery of online exercise classes through the BWP.

To compliment the practical experience, students will be required to complete training modules such as a) trauma-informed practice, b) motivation/behaviour modification and motivational interviewing skills, and c) evidence-based best practices for exercise-training for neurological balance and mobility deficits.

## **General Outline of Lectured Topics**

The course requires a minimum of 7 hours of placement time, divided over two different time blocks, that will be scheduled throughout the week. In addition, group meetings and training will be scheduled periodically throughout the term.

### **Prerequisites:**

Open to KIN students in years 3 and 4. Students will be expected to have a strong background in group exercise instruction, and demonstrated understanding of human neuroanatomy, and neurophysiology.

## **Course Assessments**

This is an overview of the assessments for this course.

<b>Assessment</b>	<b>Grading</b>
<b>Clinical Placement – Participation and Performance</b> Expectations includes evidence of: professionalism, charting/documentation, communication/interaction with patients	60%
<b>Outcomes project</b> Includes: a) initial interview with assigned patient, b) group presentation (patient history, goals and outcome measures), c) implementation of new outcome measure, d) final follow up - group presentation.	20%
<b>Quizzes</b> After each training session on FAME, and 4 clinical balance disorders	10%
<b>Self-reflection</b> Maintain log book of daily achievements, reflections and observations for each session (to be uploaded biweekly via canvas for review by course supervisors).	10%

**Students in work-integrated learning courses will be assessed using Pass/Fail scale.** Students will be assigned a grade for each of the course assessments and will be required to achieve a final grade of 70% or higher to be assigned ‘Credit’ (pass) for the course. This is different from credit/d/fail since students will not have the option to receive a course mark upon completion of the course.