

KNES 441/443/445 – PRACTICUM COURSE

Practicum Position Title: Exercise Instructor for Research Study

**Aerobic Exercise for Older Adults at Increased Risk of Alzheimer's Disease and Related Dementias:
Harnessing Translational Physiology (Brain in Motion II Study)**

of Positions Available: 2-4 per term

Industry/Company Description: We are looking for keen students who are interested in gaining some hands-on experience in completing a practicum as part of a CIHR-funded project that will investigate the effects of regular exercise on cerebrovascular reserve and cognition in older adults at risk for Alzheimer's or dementia. The Brain in Motion II Study has recruited women and men ages 50-80 years to participate in an 18-month randomized control trial. Throughout the 18 months, participants partake in a series of physiological tests including VO₂max testing, cerebrovascular flow measurements, fasting blood work and cognitive function assessments. During the 18-months, participants are randomized to one of two 6-month exercise interventions. These exercise programs are three-days a week and consists of either walking/running on a track or exercising with resistance bands.

Successful students will meet their hours by directly assisting with all aspects of the exercise intervention under supervision of the exercise trainer, including set-up/take-down, providing directions & modifications to participants, and ensuring proper data collection and entry.

Location: Cumming School of Medicine (U of C - Foothills Campus) and Kinesiology (U of C- Main Campus).

Required Hours Per Week: 60-72 hours per term/5-6 hours per week (Fall and Winter terms)

Academic Session: Fall and Winter

Specified Schedule: The exercise sessions run Mondays, Wednesdays and Fridays from 7:30-9:00am. There are flexible hours for working with the data

Project Duties/Responsibilities:

Under the Supervision of the BIM II Exercise Trainer(s), the student will:

Assist with aerobic or stretching and toning exercise sessions:

- Assist with running group exercise sessions for older adults who may have a variety of health conditions.
- Assist with equipment set-up and clean-up before and after exercise sessions
- For the first half of the practicum: students will observe exercise sessions and, under guidance of the trainer, provide demonstrations for exercise, learn important exercise cues and modifications, and progress toward leading warm-up and stretching routines.
- Motivate and engage with participants during exercise sessions
- Help ensure participants complete exercise sessions and fill out forms properly to ensure data quality
- During the latter half of the practicum: students will take a more proactive role in leading exercise sessions by leading participants through warm-ups, program exercises, and stretching. Responsibilities will include explaining exercises, providing a variety of cues, monitoring and correcting form where necessary, and providing recommendations for maintaining the required exercise intensity as needed.
- When appropriate and within scope of knowledge, provide individualized exercise modifications or recommend alternatives for participants with musculoskeletal limitations.

Assist with data entry & management from exercise sessions:

- Become familiar with Polar Team 2 software: learn how to check over, download and export heart rate data from exercise sessions and how to troubleshoot technological problems.
- Assist with inputting data into study database (will help develop Microsoft Excel skills).

- Communicate with the head trainer/study coordinator to ensure data quality.

Observe VO₂max testing, cerebrovascular flow measurements, fasting blood work and cognitive function assessments

- If time permits, students may have the opportunity to observe the above-mentioned tests. This practicum isn't focused on training students to do the testing, but if students are interested, efforts will be made to accommodate students requests based on testing schedule and the students' availability.

Areas the student will develop in this practicum:

- Broaden knowledge base of exercise instruction for clinical and healthy populations.
- Improve knowledge of chronic conditions and necessary exercise modifications.
- Practical, hands-on skills in exercise instruction and cuing, taking initiative in demonstrating and correcting technique.
- Develop client interaction and interpersonal skills.

Required Student Qualifications:

- KNES 373 (Exercise Physiology)
- KNES 203 (Activity: Health, Fitness and Performance)
- Personable and highly motivated; interested in working with older adults in a research-related setting
- Good communication and interpersonal skills
- Personal Training or Group Fitness certification / experience an asset
- Successful students will attend a practicum orientation meeting during which background information on the study design and goals and emergency procedures will be covered. Students will be requested to review documents detailing the study purpose and protocols as well as the specifics of the exercise programs.

On-Site Supervisor: --- *Please contact directly for an interview ...*

Dr. Marc Poulin (Principal Investigator) and Adrienna Dyck (Lead Exercise Trainer)
Cumming School of Medicine and Faculty of Kinesiology

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