KNES 441/443/445 – PRACTICUM COURSE

Practicum Position Title: Exercise Physiology Assistant - TCR Sport Lab

# of Positions Available: 1

Industry/Company Description: Fitness and Health. TCR is an applied testing and training centre for the general public. TCR has a metabolic lab, altitude lab, Computrainer studio, robotic bike fitting lab, a strength area and a custom bicycle shop.

Location: 1817A 10th Ave SW Calgary, AB

Required Hours: 60-72 hours per term – evenly dispersed throughout term:
- 5-6 hours per week during fall and winter terms (13 weeks)

Academic Session: Fall and Winter

Specified Schedule: Flexible

Project Duties/Responsibilities:

- Under strict supervision, students will assist exercise physiologist with fitness assessments and tests including body composition, resting metabolic rate, VO2 Max, blood lactate levels, hemoglobin/hematocrit levels and running gait analysis.
- In the bike lab, students will use the Dynamic Fitting Unit (DFU), a robotic bike fitting device, to make adjustments such as proper frame size, stem length, saddle height, crank length, bar width and drop depth.
- In the specially designed altitude lab, students will monitor clients using the treadmills and stationary bicycles. Training in the altitude lab takes place in an environment which simulates elevations ranging from sea level to 14,000 ft (4267m).
  - Under strict supervision, the student will assist in the development of individualized exercise programs based on the athlete’s ability to adapt to this unique training environment. Students will compare pre and post VO2 results and hematocrit/hemoglobin levels and create a chart demonstrating changes over time.
- Assist with Functional Movement Screening in order to establish an athlete’s baseline using the Functional Movement Screen and Y Balance Test to determine potential weaknesses that need to be addressed in training. The student will learn how to identify the movement patterns of an individual through a point-based system in order to improve athletic ability and minimize injury.
- Assist the coach in the Computrainer Studio by monitoring an athlete’s performance using this indoor stationary bicycle. The student will use the live data from each workout to help each participant and learn how to provide appropriate feedback for improvement.

Student Qualifications:
- KNES 373 (Exercise Physiology) required
- KNES 479 (Advanced Fitness Appraisal and Exercise Prescription) required
- CSEP-CPT or CSCS certification an asset
- CPR and Standard First Aid an asset KNES 373
- Active person with an interest in sport and endurance sports (cycling, running, hiking, triathlon, strength training).

On-Site Supervisor: Cory Fagan, BPE, MSc – Owner, Coach at TCR Sport Lab
Students must contact Cory directly for an interview - cory@tcrsportlab.com, 403-270-9453. Students are welcome to come by TCR for a tour prior to applying for practicum.