

<p><b>Course Name:</b>  <b>KNPE 493/3.0 - 002</b></p> <p>Special Topics in  Kinesiology  Winter 2027 Topic: Clinical  Exercise Science</p>	<p><b>Course Instructor:</b>  Dr. Robert Ross</p>	<p><b>Contact Hours:</b>  Lectures: 1 x 3 hrs / 12 weeks</p>										
		<p><b>Prerequisite:</b>  Level 4 in a KINE plan</p>										
		<p><b>Exclusion:</b></p>										
<p><b>Course Description:</b></p> <p>Physical inactivity is a major threat to public health and is associated with more deaths worldwide than smoking. In response, leading health authorities worldwide recommend that all adults accumulate 150 minutes per week of moderate-to-vigorous-intensity physical activity. Meeting this target for many adults presents a challenge and current estimates suggest that less than 50% of Canadian adults meet current recommendations. The consequences are dire, and the health risks are apparent across a wide range of outcomes. The challenges you will face as a health practitioner will require that you work with, and at times, supervise colleagues. You will also need to work independently and to demonstrate leadership. Apart from addressing selected topics in clinical exercise science, you will find that the course concepts have valuable application to a range of fields within health promotion and/or disease prevention.</p>		<p><b>Course Texts:</b></p> <p>Course notes will be placed on onQ.</p>										
<p><b>Learning Outcomes:</b></p> <ul style="list-style-type: none"> <li>• To grow academically: Increase your knowledge in the area of clinical exercise science so that you can understand the challenges and opportunities when working with colleagues to mitigate lifestyle-based disease.</li> <li>• To grow professionally: Develop your leadership and collaboration skills. Effective leaders must successfully identify problems, communicate clearly, make effective decisions, motivate and influence others and manage diversity.</li> <li>• To grow personally: Develop oral and written skills and work in a learning environment that challenges</li> </ul>		<p><b>Course Evaluation:</b></p> <table> <tr> <td>TED Talk</td> <td>20%</td> </tr> <tr> <td>Team Teaching</td> <td>20%</td> </tr> <tr> <td>Team Interview Report</td> <td>20%</td> </tr> <tr> <td>Final Exam</td> <td>20%</td> </tr> <tr> <td>Class Participation</td> <td>20%</td> </tr> </table>	TED Talk	20%	Team Teaching	20%	Team Interview Report	20%	Final Exam	20%	Class Participation	20%
TED Talk	20%											
Team Teaching	20%											
Team Interview Report	20%											
Final Exam	20%											
Class Participation	20%											

you to examine how you interact and work with others – encourage risk-taking in the classroom.

### Course Outline

Evaluating Scientific Evidence / Hypothesis Testing	Aerobic exercise is associated with an increase in skeletal muscle mass in adults.
Teaching Example / Interview Structure	Isometric exercise should be a primary strategy for reducing blood pressure.
Teams - Teaching	Is light intensity physical activity associated with a decrease in cardiovascular disease and cancer.
High intensity interval training is superior to moderate intensity continuous training.	Physical activity and type 2 diabetes.
Is obesity associated with improved cancer survival?	Sedentary activity and all-cause mortality.
Waist circumference should be a routine measure in health care settings.	