

Queen's University
School of Kinesiology and Health Studies

<p>Course Name: KNPE 345/3.0</p> <p>The Science and Methodology of Sport Training Conditioning Programs.</p>	<p>Course Instructor:</p> <p>Mr. Colin McAuslan Mr. Evan Karagiozov</p>	<p>Contact Hours: Winter 2021 – Remote Delivery</p> <hr/> <p>Prerequisite:</p> <p>Level 3 or above in a KINE or PHED Plan and KNPE 227/3.0</p> <p>Corequisite: KNPE 254/3.0</p> <hr/> <p>Exclusion:</p>										
<p>Course Description:</p> <p>This course is designed to be a practical application of anatomy, physiology and biomechanics for a sporting population. Students will learn the fundamentals of the coaching landscape, program design, physical preparation principles, high performance planning strategies, testing and evaluation, the use of technology in the training, and the application of a variety of training modalities. This course will adequately prepare the student to become professionally certified as a personal trainer or strength and conditioning coach upon graduation.</p>		<p>Course Texts:</p> <p><i>Essentials of Strength and Conditioning: 4th Edition.</i> National Strength and Conditioning Association. G.G. Haff and N.T. Triplett. ISBN-13:9781492514152</p> <p>Materials will be available through onQ.</p>										
<p>Intended Learning Outcomes:</p> <ul style="list-style-type: none"> • Students will learn the basic applications of the exercise sciences (Musculoskeletal, Neuromuscular, Cardiorespiratory, Bioenergetics, Endocrine and Biomechanics) • Students will learn about professional pathways into the fields of personal training and strength and conditioning • Students will learn progressions and regressions of movement patterns • Students will learn the theory behind activity specific warmups, stretching, mobility and recovery. Students will then be put in scenarios to coach these concepts • Students will learn a variety of health/performance assessment strategies that can be applied to a spectrum of populations • Students will learn programming periodization models that allow for performance planning and 		<p>Course Evaluation:</p> <table> <tr> <td>Biweekly Readings (5)</td> <td>10%</td> </tr> <tr> <td>Biweekly Quizzes (OnQ): (5)</td> <td>10%</td> </tr> <tr> <td>Assignment #1 (with partner)</td> <td>25%</td> </tr> <tr> <td>Online Final Exam</td> <td>30%</td> </tr> <tr> <td>Practical Assessment</td> <td>25%</td> </tr> </table>	Biweekly Readings (5)	10%	Biweekly Quizzes (OnQ): (5)	10%	Assignment #1 (with partner)	25%	Online Final Exam	30%	Practical Assessment	25%
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<p>yearly/monthly/weekly training planning</p> <ul style="list-style-type: none"> • Students will learn the principles of program design • Students will learn the training principles, exercise selections and subsequent coaching cues for full body power development exercises • Students will be introduced to the principles of velocity-based training, using the GymAware technology. This technology will allow students to bridge the gap between research and practical training with real time measurement • Students will competent in assessing and programming sport specific energy system development programs • Students will learn how to adequately bring all components of a training program together to produce an effective, multifaceted, periodized plan 	
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Course Outline

Mobility / Flexibility	Non-Olympic Lifting Power Development
RAMP Warmup System	Velocity Based Training Demonstration
Assessments	Energy System Development / Aerobic
Testing	Energy System Development / Anaerobic
Resistance Training / Coaching the Big	Resistance Training / Training Modalities / Hypertrophy
Progressions / Regressions	Strength / Power
Olympic Lifting / Snatch, Clean and Jerk	