

<p><b>Course Name:</b>  <b>KNPE 493/3.0</b></p> <p>Special Topics in          Kinesiology          Fall 2024 Topic:          Sensorimotor Control</p>	<p><b>Course Instructor:</b>          Dr. Gerome Manson</p>	<p><b>Contact Hours:</b>          Lectures: 1 x 3 hrs / 12 weeks</p>
		<p><b>Prerequisite:</b>          Level 4 in a KINE plan          This course will count towards the Applied          Exercise Science option.</p>
		<p><b>Exclusion:</b></p>

<p><b>Course Description:</b></p> <p>This course is designed to with the voluntary control of limb movements. These principles and theories will provide the student with selected concepts of human movement control and a framework for their application in research, teaching, and coaching. The objective of the course is the understanding of concepts and phenomenon associated with sensory and central nervous system contributions to the execution of goal-directed limb movements.</p>	<p><b>Course Texts:</b></p> <p>All readings will be posted online to the ONQ web page.</p>
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<p><b>Learning Outcomes:</b></p> <ul style="list-style-type: none"> <li>To know the neurological subsystems associated with motor control and their functions</li> <li>To understand the relative contribution of sensory information and the central nervous system for goal-directed behaviour</li> <li>To be aware of some of the experimental approaches in motor control research</li> <li>To be aware of the presented human information processing models for the control of limb movements</li> <li>To be capable of interpreting and presenting motor control research</li> <li>To gain creativity in the application of motor control principles</li> </ul>	<p><b>Course Evaluation:</b></p> <table> <tr> <td>Brief Lecture Presentation</td> <td>10%</td> </tr> <tr> <td>Topic Paper Presentation Summary</td> <td></td> </tr> <tr> <td>Outline</td> <td>15%</td> </tr> <tr> <td>Topic Paper Presentation</td> <td>15%</td> </tr> <tr> <td>Final Exam</td> <td>60%</td> </tr> </table>	Brief Lecture Presentation	10%	Topic Paper Presentation Summary		Outline	15%	Topic Paper Presentation	15%	Final Exam	60%
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<b>Course Outline</b>	
Hidden cognitive states revealed in choice reaching tasks	Sensory modulation of movement, posture and locomotion.
Sensory Coding	Spinal models
Visuo-motor control	Neurobehavioral Perspectives.
Perceiving Spatial Relationships.	Body schema and body image
The Vestibular System	Dissociable components

