

<p>Course Name: KNPE 493/3.0</p> <p>Special Topics in Kinesiology Fall 2023 Topic: Neural Basis of Human Sensorimotor Control</p>	<p>Course Instructor: Dr. Gerome Manson</p>	<p>Contact Hours: Lectures: 1 x 3 hrs / 12 weeks</p>										
		<p>Prerequisite:</p> <p>Level 4 in a KINE plan</p> <p>This course will count towards the Applied Exercise Science option.</p>										
		<p>Exclusion:</p>										
<p>Course Description:</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>Course Texts:</p> <p>All readings will be posted online to the ONQ web page.</p>										
<p>Learning Outcomes:</p> <ul style="list-style-type: none"> To know the neurological subsystems associated with motor control and their functions To understand the relative contribution of sensory information and the central nervous system for goal-directed behaviour To be aware of some of the experimental approaches in motor control research To be aware of the presented human information processing models for the control of limb movements To be capable of interpreting and presenting motor control research To gain creativity in the application of motor control principles 		<p>Course Evaluation:</p> <table> <tr> <td>Midterm</td> <td>20%</td> </tr> <tr> <td>Topic Paper Presentation Summary</td> <td></td> </tr> <tr> <td>Outline</td> <td>10%</td> </tr> <tr> <td>Topic Paper Presentation</td> <td>15%</td> </tr> <tr> <td>Final Exam</td> <td>55%</td> </tr> </table>	Midterm	20%	Topic Paper Presentation Summary		Outline	10%	Topic Paper Presentation	15%	Final Exam	55%
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Course Outline												
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
Behavioral Motor Control	