

<p>Course Name: KNPE 125/3.0 Introduction to Human Physiology</p>	<p>Course Instructors: Mr. Patrick Drouin Ms. Ellen McGarity-Shipley Ms. Eveline Soares Menezes</p>	<p>Contact Hours: Lectures: 3 x 1 hr / 12 weeks</p>
		<p>Prerequisite: Level 1 or above in a HLTH, KINE or PHED Plan.</p>
		<p>Exclusions: No more than one course from IDIS 150/6.0; or (PHGY 215/3.0 or PHGY 216/3.0); PHGY 210/6.0; PHGY 212/6.0; PHGY 214/6.0</p>
<p>Course Description:</p> <p>This course provides an introduction to human physiology from the cellular to the systemic level with special emphasis on the systems that adapt to exercise stress. The following areas will be covered: the cell, nervous system, skeletal muscle system, respiratory system, cardiovascular system, neuroendocrine system, renal system and reproductive physiology.</p>	<p>Course Texts: (strongly recommended)</p> <p><u>Principles of Human Physiology</u>. 6th ed. Cindy L. Stanfield. Pearson, Toronto.</p> <p>This text is primarily a supplement to the information presented in lecture, exams will be based on lecture material only.</p> <p>Mastering A&P Online Resource (http://www.masteringaandp.com/)</p> <p>Slides of lectures and other resources will be posted on onQ.</p>	
<p>Course Objectives:</p> <p>The learning outcomes of this course are as follows:</p> <ul style="list-style-type: none"> • Students will be able to describe the basic structural and functional characteristics of types of cells (e.g. neural, muscle), organs (eg. blood vessels, lungs) and organ systems relevant to human movement. • Students will develop an understanding of the underlying causal chain of events that constitute physiological function. • Students will learn the basis of a conceptual framework for understanding control and regulation of physiological systems relevant to human movement. 	<p>Course Evaluation:</p> <p>TBA</p> <p>Cellular Function and Neural Physiology Muscle Physiology and Metabolism Systems Physiology</p>	

Course Outline

Homeostasis: A Framework for Human Physiology	Muscle Fibre Types and Types of Muscle
Cell and Protein Structure and Function	Anaerobic Metabolism
Chemical Reactions: Enzyme Function	Fatty Acid Metabolism and the TCA Cycle
Protein Synthesis	Aerobic Metabolism
Membrane Physiology	Protein Metabolism
Membrane Potentials	Gastrointestinal Physiology
Action Potentials	Liver and Adipose Tissue
Conduction and Chemical Synapses	Endocrine System
Sensory Receptors and Afferent Signaling	Pulmonary Physiology
Reflex Control of Movement	Renal Physiology
Voluntary Control of Movement	Immune System
Skeletal Muscle Anatomy	Cardiovascular Physiology
Excitation Contraction Coupling	Exercise Physiology
Muscle Fibre Types and Types of Muscle	Course Review
Anaerobic Metabolism	

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