Queen's University School of Kinesiology and Health Studies



Course Name:
KNPE 125/3.0
Introduction to Human Physiology
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Course Instructors:

Dr. Brendon Gurd

Contact Hours:

Lectures: 3 x 1 hr / week

Prerequisite:

Level 1 or above in a HLTH or KINE Plan.

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

Course Description:

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.

Course Texts:

KNPE125 Course Pack (required)

The course pack will be available on OnQ. This course pack contains readings and activities to help you learn a conceptual framework of flow to predict how physiological systems adapt in response to a disturbance in the system (i.e. human movement) (learning outcome 3). The information from the course pack will be tested in the following components of the course:

- 1. Unit tests
- 2. The final exam

Textbook (Optional) Principles of Human Physiology. 6th ed. Cindy L. Stanfield. Pearson,

This textbook can be purchased at the Online Book Store here:

https://www.campusbookstore.com/textbooks/accesscode-search-engine Search for: KNPE 125 This text is used primarily as a supplement to the information presented in lecture, exams will be based on lecture material only.

Learning Outcomes:

- Describe the basic structural and functional characteristics of types of cells (e.g. neural, muscle), organs (e.g. blood vessels, lungs) and organ systems relevant to human movement.
- Accurately recite the conceptual framework of flow (both the equation for flow and the flow model) which will be used in this course to understand the

Course Evaluation:

UNIT 1

Online Quizzes 1-3 Optional Unit 1 Test - Phase 1 – 18% Unit 1 Test - Phase 2 - 2% UNIT 2

Online Quizzes 4-6 Unit 2 Test - Phase 1 - 18% Unit 2 Test - Phase 2 - 2%

underlying causal chain of events that constitute UNIT 3 physiological function. Online Quizzes 7-9 Apply the conceptual framework of flow to predict Unit 3 Test - Phase 1 - 18% Unit 3 Test - Phase 2 - 2% how physiological systems adapt in response to a disturbance in the system (i.e. human movement). **Final Exam** 40% **Course Outline** Muscle Physiology Cell Metabolism Cell Membrane Transport Cardiovascular System Chemical Messengers Respiratory System The Endocrine system - endocrine glands, hormone Renal Physiology action, metabolism, growth, and reproduction Nerve Cells Gastrointestinal Physiology Synaptic Physiology Reproductive Systems

Immune System Physiology

Central Nervous System

Autonomic and Motor Nervous System