

This module aims to enable the student to understand the fundamentals of the operation of human organ systems as they relate to human performance. Topics covered include an overview of body function, cell structure and biological control systems. The structure and functioning of various physiological systems will also be covered. These will include the nervous, musculoskeletal, cardiovascular, respiratory, and regulatory systems. Module content will be delivered in the form of lectures supplemented with e-learning activities.

<div style="text-align:center;"><p>Curricular information is subject to change</p></div>

What will I learn?

Learning Outcomes:<p>On completion of this module students should be able to: 1. Describe the basic structure and function of human cells and organ systems. 2. Demonstrate an understanding of the essential physiological functions of nervous, musculo-skeletal, cardiovascular, respiratory and renal physiological systems. 3. Demonstrate an understanding of how these systems operate and interact with each other in relation to human performance.</p>Indicative Module Content:<p>Indicative module descriptor for Science of Human performance I
The internal environment and homeostasis, the cell structure
The transport across cell membranes
Control of cells by chemical messenger
The neural tissue, the functional classification of neurons and the membrane potentials The general structure of the nervous system
Principles of Control of body movement
The structure of the skeletal muscle
The sliding filament theory and the mechanic of muscle contraction

The heart anatomy and the cardiac conduction system
The cardiac cycle and the cardiac output
The vascular system The organization of the respiratory system and Mechanic of ventilation
Alveolar gas exchange transport of gases in blood and control of respiration

The kidneys, basic renal functions
The renal clearance and the body balance of sodium and water</p></div>

How will I learn?

Student Effort Hours:

Student Effort Type	Hours
Lectures	30
Specified Learning Activities	20
Autonomous Student Learning	60
Total	110

Am I eligible to take this module?

<div class="subHeadCB">Requirements, Exclusions and Recommendations</div>

<p>Not applicable to this module.</p>

<div class="subHeadCB">Module Requisites and Incompatibles</div>

Incompatibles:

MDSA10090 - Vascular Biology, MDSA10110 - Renal Biology Med, MDSA20170 - Vascular Biology, MDSA20190 - Renal Biology, PHYS20030 - Organ and Systems Physiology, PHYS20040 - Cell and Tissue Physiology, PHYS30090 - Digestion and Excretion, SMGT10210 - Appl Biology of

Sport and Ex

Equivalents:

Essentials of Human Performanc (PHTY10070), Sci of Human Perf I (PHTY10120)

How will I be assessed?

Assessment Strategy

Description	Timing	Open Book Exam	Component Scale	Must Pass Component	% of Final Grade
Class Test: Multiple choice	Week 7	n/a	Graded	No	50
Multiple Choice Questionnaire : Multiple choice	1 hour End of Trimester Exam	n/a	Graded	No	50

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<div class="col-sm-6">Carry forward of passed components

No</div>

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What happens if I fail?

Resit In	Terminal Exam
Spring	Yes - 2 Hour

Assessment feedback

<div class="subHeadCB">Feedback Strategy/Strategies</div>

<p>* Feedback individually to students, post-assessment

</p>

<div class="subHeadCB">How will my Feedback be Delivered?</div>

<p>Feed back is provided on an individual basis when requested</p>

Reading List

Associated Staff

Name	Role
Mrs Karen Ryan	Tutor

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<h1 class="printOnly"> UCD Course Search

Science of Human Performance I (PERS10120) </h1><h3 class="printOnly">Academic Year 2019/2020</h3><p class="printOnly">The information contained in this document is, to the best of our knowledge, true and accurate at the time of publication, and is solely for informational purposes. University College Dublin accepts no liability for any loss or damage howsoever arising as a result of use or reliance on this information.</p>

<h4 class="noPrint">Science of Human Performance I (PERS10120)</h4>

<dl>

<dt>Subject:</dt>

<dd>Performance Science</dd>

<dt>College:</dt>

<dd>Health & Agricultural Sciences</dd>

<dt>School:</dt>

<dd>Public Hlth, Phys & Sports Sci</dd>

<dt>Level:</dt>

<dd>1 (Introductory)</dd>
<dt>Credits:</dt>
<dd>5.0</dd>

<dt>Trimester:</dt>
<dd>Autumn</dd>
<dt>Module Coordinator:</dt>
<dd>Dr Domenico Crognale</dd>
<dt>Mode of Delivery:</dt>
<dd>Face-to-Face</dd>

<dt>Internship Module:</dt><dd>No</dd>

<dt>How will I be graded?</dt>
<dd>Letter grades </dd>

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Page</button>
(Google Chrome is recommended when printing
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