Title: Human Anatomy and Physiology
Long Title: Human Anatomy and Physiology
Module Code: PHOL6006
Credits: 5
NFQ Level: Fundamental
Field of Study: Physiology
Valid From: Semester 1 - 2017/18 (September 2017)
Module Delivered in 7 programme(s)
Module Coordinator: BRENDAN O CONNELL
Module Author: Fiona OHalloran
Module Description: This module describes the systems of the human body, introducing the student to human anatomy, physiological processes and inter-relationship between the systems.

Learning Outcomes
On successful completion of this module the learner will be able to:
LO1 Describe the different types of tissues found in the human body and explain their biological functions
LO2 Describe the functional components of human body systems
LO3 Outline the physiological processes of the different body systems and explain the concepts relating to specific diseases and disorders
LO4 Perform practicals and write reports illustrating physiological processes

Pre-requisite learning
Module Recommendations
This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named CIT module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).

The students are strongly recommended to undertake a biology based subject at secondary school level.

Incompatible Modules
These are modules which have learning outcomes that are too similar to the learning outcomes of this module. You may not earn additional credit for the same learning and therefore you may not enrol in this module if you have successfully completed any modules in the incompatible list.

No incompatible modules listed

Co-requisite Modules
No Co-requisite modules listed

Requirements
This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed. You may not enrol on this module if you have not acquired the learning specified in this section.

No requirements listed

Co-requisites
No Co Requisites listed
Indicative Content

Digestive System
Anatomy of the gastrointestinal tract. Physiology of digestion, motility and absorption processes.

Cardiovascular System
Anatomy and physiology of the heart, types of blood vessels. Blood composition, functions of blood cells, introduction to blood groups

Immune system
Differentiate between innate and adaptive immune response, role of lymphocytes (B and T cells), immunorecognition and antibodies.

Respiratory System
Anatomical features of the respiratory tract, mechanism of breathing, physiology of respiration, transport and exchange of oxygen and carbon dioxide.

Urinary System

Nervous System
Structure and function of neurons. Physiology of nerve impulse conduction, role of neurotransmitters. Functional division of the nervous system.

Musculoskeletal System
Overview of the musculoskeletal system. Structure of muscle tissue types and physiological process of muscle contraction. Bone cells and tissue composition, supportive structures of the musculoskeletal system.

Endocrine System
Overview of the main endocrine organs and biological effects of the hormones they produce. Hormone receptors and feedback mechanisms. Integration and communication with other body systems.

Reproductive System
Anatomy and physiology of female and male reproductive systems, role of hormones and their regulation. Development of the male and female gametes and pregnancy.

Assessment Breakdown

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Assessment Description</th>
<th>Outcome addressed</th>
<th>% of total</th>
<th>Assessment Date</th>
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<tbody>
<tr>
<td>Course Work</td>
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Multiple Choice Questions
Theory assessment: body tissues, anatomical features and physiological processes of selected body systems

Outcome addressed: 1,2,3

% of total: 30.0

Assessment Date: Week 7

Short Answer Questions
Theory assessment: detailed descriptions of the functional components of human body systems

Outcome addressed: 2,3

% of total: 35.0

Assessment Date: Week 13

Practical/Skills Evaluation
Practical Reports

Outcome addressed: 2,3,4

% of total: 15.0

Assessment Date: Every Second Week

Practical/Skills Evaluation
Laboratory-based examination

Outcome addressed: 4

% of total: 20.0

Assessment Date: Sem End

No End of Module Formal Examination

Reassessment Requirement

Repeat examination
Reassessment of this module will consist of a repeat examination. It is possible that there will also be a requirement to be reassessed in a coursework element.

The institute reserves the right to alter the nature and timings of assessment.
<table>
<thead>
<tr>
<th>Workload Type</th>
<th>Workload Description</th>
<th>Hours</th>
<th>Frequency</th>
<th>Average Weekly Learner Workload</th>
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<td>Lecture</td>
<td>Class based instruction</td>
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<td>Every Week</td>
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<td>Lab</td>
<td>Laboratory Sessions</td>
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<td>Unassisted study time</td>
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This module has no Part Time workload.
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<tr>
<th>Module Resources</th>
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<tr>
<td><strong>Recommended Book Resources</strong></td>
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<td><strong>Supplementary Book Resources</strong></td>
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<td><strong>This module does not have any article/paper resources</strong></td>
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<td>• website: Human Anatomy and Physiology - Get Body Smart <a href="https://www.getbodysmart.com/">https://www.getbodysmart.com/</a></td>
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