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Module specification

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Module Code	NAD403
Module Title	Human Anatomy and Physiology
Level	4
Credit value	20
Faculty	Social and Life Sciences
HECoS Code	100744
Cost Code	GADT

Programmes in which module to be offered

Programme title	Is the module core or option for this programme
BSc (Hons) Nutrition and Dietetics	Core

Pre-requisites

N/A

Breakdown of module hours

Learning and teaching hours	20 hrs
Placement tutor support	0 hrs
Supervised learning e.g. practical classes, workshops	16 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total active learning and teaching hours	**36 hrs**
Placement / work based learning	0 hrs
Guided independent study	164 hrs
Module duration (total hours)	**200 hrs**

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Initial approval date	31/8/22
With effect from date	September 2022

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Date and details of revision	August 2023 – AM0 minor amend to Syllabus Outline June 2024 – AM2 to update Indicative Assessment Tasks section for implementation from Sept 2024.
Version number	3

Module aims

This module aims to introduce the student to applied anatomy and physiology and enhance their knowledge and understanding of the complex systems within the human body. Students will develop an understanding of models that explore the critical windows of opportunity to influence health and performance. Investigating how the body responds at rest and during exercise and exploring the methods used to monitor the development of the bodily systems within an exercise context will be a primary feature.

Module Learning Outcomes - at the end of this module, students will be able to:

1	Demonstrate an understanding of the structures and functions of the human body.
2	Describe how the various systems of the body work at rest and during exercise.
3	Outline the physiological tests used to assess individuals and the considerations for their application in different population groups.
4	Explain experimental data collected from laboratory based practical work.

Assessment

Indicative Assessment Tasks:

This section outlines the type of assessment task the student will be expected to complete as part of the module. More details will be made available in the relevant academic year module handbook.

Assessment 1: In-class test (2 hours)

Assessment 2: Lab report (2000 words)

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1 – 2	In-class test	50
2	3 - 4	Written Assignment	50

Derogations

A minimum grade of 40% must be achieved in all assessment components in order to pass the module and progress to level 5.

Learning and Teaching Strategies

The Active Learning Framework (ALF) will be utilised in the delivery of this module through synchronous and asynchronous content. It will consist of lectures, seminars, interactive online content and laboratory-based practical sessions. The practical sessions will support class lectures and enable students to develop applied skills and foster creativity and innovation through the sharing of ideas.

Indicative Syllabus Outline

The module will cover the following indicative content:

- Homeostasis - health screening and blood pressure
- Muscular and skeletal systems - body composition
- Cardiovascular system - HR and RPE, RMR and $VO2_{max}$, energy systems
- Respiratory system - spirometry
- Nervous system
- Endocrine system
- Immune system
- Gastrointestinal system
- Renal system
- Practical methods for anatomical and physiological assessment (anthropometric measurements), data collection and interpretation

Indicative Bibliography:

Please note the essential reads and other indicative reading are subject to annual review and update.

Essential Reads

Martini, F.N. Nath, J.L. Bartholowmew, E.F. (2018), *Fundamentals of Anatomy and Physiology.* 11th ed. Upper Saddle River, NJ: Pearson.

McArdle, W. D. Katch, F. I. and Katch, V. L. (2015), *Exercise Physiology: Energy, Nutrition & Human Performance. 8th ed.* Philadelphia: Williams and Wilkins.

Other indicative reading

Norris, M. and Siegfried, D.R. (2017), *Anatomy and Physiology for Dummies. 3rd ed. Hoboken*, NJ: Wiley.

Power, S.K. and Howley, E.T. (2021), *Exercise Physiology. Theory and Application to Fitness and Performance.* 11th ed. New York: McGraw-Hill.

Tortora, G.J. and Derrickson, B. (2017), *Principles of Anatomy and Physiology*. 15th ed. Singapore: Wiley.