

## 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
<b>Total active learning and teaching hours</b>	<b>36 hrs</b>
Placement / work based learning	0 hrs
Guided independent study	164 hrs
<b>Module duration (total hours)</b>	<b>200 hrs</b>

<b>For office use only</b>	
Initial approval date	31/8/22
With effect from date	September 2022
Date and details of revision	August 2023 – AM0 minor amend to Syllabus Outline
Version number	2

## Module aims

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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

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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:** MCQ in-class test (1 hour)

**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

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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

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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

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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  $VO_{2max}$ , 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:

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

### Essential Reads

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

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

### Other indicative reading

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

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

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

## Employability skills – the Glyndŵr Graduate

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Each module and programme is designed to cover core Glyndŵr Graduate Attributes with the aim that each Graduate will leave Glyndŵr having achieved key employability skills as

part of their study. The following attributes will be covered within this module either through the content or as part of the assessment. The programme is designed to cover all attributes and each module may cover different areas.

**Core Attributes**

Engaged

**Key Attitudes**

Curiosity

Confidence

**Practical Skillsets**

Critical Thinking