

Module code: MOD010862	Version: 2 Date Amended: 11/Jun/2026
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1. Module Title
Introduction to Human Physiological Systems

2a. Module Leader
Gregory Deacon

2b. School
School of Psychology, Sport and Sensory Sciences

2c. Faculty
Faculty of Science and Engineering

3a. Level
4

3b. Module Type
Standard (fine graded)

4a. Credits
30

4b. Study Hours
300

5. Restrictions			
Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:			

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

This module will provide you with an understanding of the fundamental concepts of human anatomy and physiology which underpin the biological sciences. You'll gain sound knowledge of the mechanisms associated with the control and regulation of the human body systems; groups of organs that work together to produce and sustain life. The material covered in lectures and practical classes will provide a foundation for more advanced study of exercise physiology or applied biomedicine. During this module, you'll also develop independent study skills and the ability to obtain and assess scientific information.

6b. Outline Content

Indicative content will include:

- Describing the molecular structure and function of cellular tissues, membranes and their organisational levels
- Defining anatomical position and basic terms of structure, position and movement
- Describing the functions of the skeleton and the structure of bones, their development, repair and remodelling
- Describing the structure and function of muscle, their contraction and the sliding filament theory, outlining the functional and metabolic characteristics of different fibre types
- Describing the mechanism of pulmonary ventilation, outlining how respiratory gases are transported in the blood with an explanation on how the concentrations of respiratory gases in the blood are regulated.
- Identifying the main function and structures of the heart in relation to the cardiovascular system including the components of blood cells
- Defining the structure of the nervous system in relation to its functional organisation, outlining synaptic transmission and neural reflexes
- Outlining the primary and secondary immune response, identifying the body's specific and non-specific defences including the different classes of antibodies and their function
- Naming and describe the major components and functions of the urinary system, the structure of the kidney and the basic principles of nephron transport and urine formation
- Outlining the principles of homeostasis and describing control systems and explain biofeedback
- Reviewing the structure, principles of distribution and modes of action of hormones and explaining how hormones integrate substrate provision and metabolism
- Describing the basic functions of the GI system and the processes of digestion, absorption and elimination
- Undertaking practical sessions linked to theory and collection of real-time data for analysis and use in the assignment

6c. Key Texts/Literature

The reading list to support this module is available at: <https://readinglists.aru.ac.uk/>

6d. Specialist Learning Resources

Writtle Performance Centre Laboratory

7. Learning Outcomes (threshold standards)		
No.	Type	On successful completion of this module the student will be expected to be able to:
1	Knowledge and Understanding	Identify the structure, function, processes and control of the body's major cells, tissues and organs
2	Knowledge and Understanding	Recognise basic anatomical structure and recall function and communication of the major systems of the human body
3	Knowledge and Understanding	Explain the processes of cellular respiration and energy production in relation to exercise
4	Intellectual, practical, affective and transferrable skills	Use appropriate scientific methods and approaches to gather, record, analyse and present data and information clearly and informatively.

8a. Module Occurrence to which this MDF Refers				
Year	Occurrence	Period	Location	Mode of Delivery
2026/7	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	Hours	Learning Outcomes	Details of Duration, frequency and other comments
Lectures	50	1-3	Weekly lectures
Other teacher managed learning	30	1-4	15 practical sessions over the year. Individual and small group seminars, and peer discussion/collaboration opportunities
Student managed learning	220	1-4	Additional reading, tasks, synthesis and assessment preparation
TOTAL:	300		

9. Assessment for the above Module Occurrence					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Practical	1-3	20 (%)	Fine Grade	30 (%)
In-class 45 min multiple choice test (24 questions) covering trimester 1 content. (equivalent to 800 words)					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
011	Coursework	3-4	50 (%)	Fine Grade	30 (%)
2000-word laboratory report using gathered class experimental data					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
012	Practical	1-3	30 (%)	Fine Grade	30 (%)
In-class 75 min multiple choice test (36 questions) covering all content delivered in trimester 2 with some underpinning knowledge carried over from trimester 1. (equivalent to 1200 words)					

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*). In addition, students are required to: (a) achieve the qualifying mark for each element of fine graded assessment as specified above (b) pass any pass/fail elements [* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]					
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