



Module Definition Form (MDF)

Module code: MOD010872	Version: 1 Date Amended: 07/Mar/2025
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1. Module Title
Applied Exercise Physiology

2a. Module Leader
Charlotte Gowers

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

2c. Faculty
Faculty of Science and Engineering

3a. Level
6

3b. Module Type
Standard (fine graded)

4a. Credits
15

4b. Study Hours
150

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

Within this module, you'll develop a detailed understanding of the limitations of human performance during different modes of exercise, and under a range of different conditions. You'll critically evaluate mechanisms proposed in the literature to explain the developments or decrements resulting from exercise and will apply your knowledge of exercise physiology to analyse methods of training and other interventions to improve physical performance. A core feature of the module is the application of evidence-based science to real world problems in exercise physiology.

6b. Outline Content

Training methods and proposed mechanisms of performance enhancement including hypoxia (altitude, tents; training in hypoxic masks/chambers); respiratory muscle training; different forms of strength training; vibration; compression; high intensity intervals; exercise intensity domains and training distribution (ventilatory/lactate thresholds); key determinants of performance).

6c. Key Texts/Literature

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

6d. Specialist Learning Resources

None

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	Critically evaluate a range of training methods and interventions to improve physical performance
2	Knowledge and Understanding	Critically evaluate mechanisms and models proposed in the literature to explain the different forms of exercise and under various conditions and to explain the development of fatigue during different forms of exercise and under various environmental conditions e.g. heat and high altitude
3	Intellectual, practical, affective and transferrable skills	Demonstrate an ability to apply intellectual physiological knowledge to real-world athlete scenarios.

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	30	1-3	3-hour lecture per week
Other teacher managed learning	10	1-3	Individual and small group seminars, and peer discussion/collaboration opportunities
Student managed learning	110	1-3	Additional reading, tasks, synthesis and assessment preparation
TOTAL:	150		

9. Assessment for the above Module Occurrence					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Coursework	1-3	100 (%)	Fine Grade	30 (%)
A 3000-word Systematic review to critically analyse methods of training chosen from a selection of topics. The topics might include contemporary models of fatigue, techniques used to acclimatize athletes, specific training methods, or methods employed to delay the onset of fatigue/injury (e.g. training, nutrition, compression or pre-cooling).					

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]
