Module Descriptor

Title	Principles of Exercise Physiology		
Session	2026/27	**Status**	Published
Code	SPOR08039	**SCQF Level**	8
Credit Points	30	**ECTS (European Credit Transfer Scheme)**	15
School	**Health and Life Sciences**		
Module Co-ordinator	Rachel Kimble		

Summary of Module

This module builds knowledge and practical skills developed in previous exercise modules. It will also underpin subsequent exercise physiology modules. Students will explore the key physiological responses to exercise. The module will equip students with the theoretical knowledge and practical skills of the physiological responses to exercise.

This module will assist the student in the development of key 'I am UWS Graduate Attributes' to allow those that complete this module to be:

Universal:

Critical Thinker

Collaborative

Research-minded

Work Ready:

Problem -solver

Motivated

Effective communicator

Successful:

Innovative

Incisive

Driven

Module Delivery Method	On-Campus[1] ☒	Hybrid[2] ☐	Online[3] ☐	Work -Based Learning[4] ☐
Campuses for Module Delivery	☐ Ayr ☐ Dumfries	☒ Lanarkshire ☐ London ☐ Paisley	☐ Online / Distance Learning ☐ Other (specify)	

Terms for Module Delivery	Term 1	☒	Term 2	☐	Term 3	☐
Long-thin Delivery over more than one Term	Term 1 – Term 2	☐	Term 2 – Term 3	☐	Term 3 – Term 1	☐

Learning Outcomes	
L1	Describe the metabolic and neuromuscular processes that underpin muscle contraction during exercise.
L2	Describe the principal acute cardiovascular, respiratory, and metabolic responses to exercise.
L3	Analyse, present, and interpret exercise physiology data collected in the laboratory.
L4	
L5	

Employability Skills and Personal Development Planning (PDP) Skills	
SCQF Headings	**During completion of this module, there will be an opportunity to achieve core skills in:**
Knowledge and Understanding (K and U)	**SCQF 8** Demonstrating a broad knowledge of the extent, and principle processes involved in cardiorespiratory and neuromuscular physiology at rest and in acute response to exercise. Demonstrating an understanding of the core theories relating to physiological control in exercise.
Practice: Applied Knowledge and Understanding	**SCQF 8** Using a range of laboratory skills to obtain, interpret and present data from both experimental and scientific literature settings. Students will develop routine skills in evaluating physiological responses at rest and to exercise.

[1] Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

[2] The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

[3] Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

[4] Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

Generic Cognitive skills	**SCQF 8** Critically analysing and evaluating physiological data, developing research skills to formulate evidence based solutions.
Communication, ICT and Numeracy Skills	**SCQF 8** Developing routine skills regarding the use of physiological terminology both rally and in writing to convey complex information to a variety of audiences. Students will use a range of standard ICT applications to process, obtain and evaluate numerical and graphical physiological data.
Autonomy, Accountability and Working with Others	**Please select SCQF Level** Demonstrating working effectively in group tasks during data collection, whilst taking continuing account of own and others' roles, responsibilities and contributions during physiological assessment sessions.

Prerequisites	**Module Code**	**Module Title**
	Other	
Co-requisites	**Module Code**	**Module Title**

Learning and Teaching	
In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours. The teaching and learning approach combines face-to-face lectures, tutorials, and laboratory sessions with asynchronous directed learning supported through the UWS Virtual Learning Environment (VLE).	
Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture / Core Content Delivery	18
Tutorial / Synchronous Support Activity	12
Laboratory / Practical Demonstration / Workshop	24
Asynchronous Class Activity	12
Independent Study	234
n/a	
TOTAL	300

Indicative Resources
The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

McArdle, W.D., Katch, F.I., and Katch, V.L. (2023). Exercise Physiology: Nutrition, energy and human performance. 9th International Edition. Philadelphia: Lippincott Williams & Wilkins.
(N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Attendance and Engagement Requirements
In line with the Student Attendance and Engagement Procedure, Students are academically engaged if they are attending and participating in all timetabled programme activities including on-campus and online teaching sessions, asynchronous online learning activities, placement, work-based elements, course-related learning resources, and complete assessments and submit these on time. **For the purposes of this module, academic engagement equates to the following:** 100% Attendance at all module events and consistent weekly engagement with online materials.

Equality and Diversity
The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code. In line with current legislation (Equality Act, 2010) and the UWS Equality, Diversity, and Human Rights Code, our modules are accessible and inclusive, with reasonable adjustment for different needs where appropriate. Module materials comply with University guidance on inclusive learning and teaching, and specialist assistive equipment, support provision and adjustment to assessment practice will be made in accordance with UWS policy and regulations. Where modules require practical learning or assessment, alternative formats and/or roles will be provided for students with physical disabilities which impact participation.
(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

Divisional Programme Board	**Sport Exercise Health**
Overall Assessment Results	☐ **Pass / Fail** ☒ **Graded**
Module Eligible for Compensation	☐ **Yes** ☒ **No** **If this module is eligible for compensation, there may be cases where compensation is not permitted due to programme accreditation requirements. Please check the associated programme specification for details.**
School Assessment Board	Sport, Exercise & Health
Moderator	Mark Sanderson
External Examiner	A Tocknell
Accreditation Details	
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**
Changes / Version Number	2

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Class test.
Assessment 2
Laboratory report.
Assessment 3
(N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

Component 1							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Class test (written)	☒	☒	☐	☐	☐	60	0.75

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Report of practical/ field/ clinical work	☐	☐	☒	☐	☐	40	0

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
	☐	☐	☐	☐	☐		
Combined total for all components						100%	0.75 hours

Change Control

What	**When**	**Who**
Module delivery and hours and T&L approach	19/03/2026	RK