

Session: 2023/24

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Status: Published

Title of Module: Principles of Exercise Physiology

Code: SPOR08039	SCQF Level: 8 (Scottish Credit and Qualifications Framework)	Credit Points: 30	ECTS: 15 (European Credit Transfer Scheme)
School:	School of Health and Life Sciences		
Module Co-Ordinator:	Duncan Buchan		

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:

- Inquiring
- Ethically-minded
- Research-minded

Work Ready:

- Problem-solver
- Effective communicator
- Ambitious

Successful:

- Autonomous
- Resilient
- Driven

Module Delivery Method					
Face-To-Face	Blended	Fully Online	HybridC	HybridO	Work-based Learning
			✓		
<p>Face-To-Face Term used to describe the traditional classroom environment where the students and the lecturer meet synchronously in the same room for the whole provision.</p> <p>Blended A mode of delivery of a module or a programme that involves online and face-to-face delivery of learning, teaching and assessment activities, student support and feedback. A programme may be considered "blended" if it includes a combination of face-to-face, online and blended modules. If an online programme has any compulsory face-to-face and campus elements it must be described as blended with clearly articulated delivery information to manage student expectations</p> <p>Fully Online Instruction that is solely delivered by web-based or internet-based technologies. This term is used to describe the previously used terms distance learning and e learning.</p> <p>HybridC Online with mandatory face-to-face learning on Campus</p> <p>HybridO Online with optional face-to-face learning on Campus</p> <p>Work-based Learning Learning activities where the main location for the learning experience is in the workplace.</p>					

Campus(es) for Module Delivery						
The module will normally be offered on the following campuses / or by Distance/Online Learning: (Provided viable student numbers permit)						
Paisley:	Ayr:	Dumfries:	Lanarkshire:	London:	Distance/Online Learning:	Other:
			✓			

Term(s) for Module Delivery					
(Provided viable student numbers permit).					
Term 1	✓	Term 2		Term 3	

Learning Outcomes: (maximum of 5 statements)
<p>On successful completion of this module the student will be able to:</p> <p>L1. Describe the metabolic and neuromuscular processes that underpin muscle contraction during exercise.</p> <p>L2. Describe the principal acute cardiovascular, respiratory, and metabolic responses to exercise.</p> <p>L3. Analyse, present, and interpret exercise physiology data collected in the laboratory.</p>

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)	<p>SCQF Level 8.</p> <p>Demonstrating a broad knowledge of the extent, and principle processes involved in cardiorespiratory and neuromuscular physiology at rest and in acute response to exercise.</p> <p>Demonstrating an understanding of the core theories relating to physiological control in exercise.</p>
Practice: Applied Knowledge and Understanding	<p>SCQF Level 8.</p> <p>Using a range of laboratory skills to obtain, interpret and present data from both experimental and scientific literature settings.</p> <p>Students will develop routine skills in evaluating physiological responses at rest and to exercise.</p>
Generic Cognitive skills	<p>SCQF Level 8.</p> <p>Critically analysing and evaluating physiological data, developing research skills to formulate evidence based solutions.</p>
Communication, ICT and Numeracy Skills	<p>SCQF Level 8.</p> <p>Developing routine skills regarding the use of physiological terminology both orally and in writing to convey complex information to a variety of audiences.</p> <p>Students will use a range of standard ICT applications to process, obtain and evaluate numerical and graphical physiological data.</p>
Autonomy, Accountability and Working with others	<p>SCQF Level 8.</p> <p>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.</p>

Pre-requisites:	Before undertaking this module the student should have undertaken the following:	
	Module Code:	Module Title:
	Other:	
Co-requisites	Module Code:	Module Title:

* Indicates that module descriptor is not published.

Learning and Teaching

The teaching and learning approach will utilise a combination of asynchronous, and synchronous online face to face delivery, with supporting resources to promote the development of a broad understanding of the principles of sport and exercise physiology. Learning will be facilitated through the use of UWS VLE systems.

Core theoretical content will be predominantly delivered through a series of blended delivery via face to face delivery and where appropriate online delivery, including recorded lectures. Face to face sessions will comprise of laboratory sessions, which will form a vital component of the module and allow the students to develop basic skills essential to the sport and exercise science graduate. This also provides the students with the opportunity to work independently or in small groups, generating formative feedback and assessment from both peers and staff.

Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	Student Learning Hours (Normally totalling 200 hours): (Note: Learning hours include both contact hours and hours spent on other learning activities)
Laboratory/Practical Demonstration/Workshop	18
Tutorial/Synchronous Support Activity	12
Asynchronous Class Activity	24
Independent Study	246
	300 Hours Total

****Indicative Resources: (eg. Core text, journals, internet access)**

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

Recommended texts:

McArdle, W.D., Katch, F.I., and Katch, V.L. (2014) Exercise Physiology: Nutrition, Energy, and Human Performance. International Edition. Baltimore: Lippincott Williams and Wilkins.

Tortora, G.J. and Derrickson, B. H. (2017). Principles of Anatomy and Physiology. 15th Edition, Global Edition. UK: Wiley.

(**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)

Engagement Requirements

In line with the Academic Engagement Procedure, Students are defined as academically engaged if they are regularly engaged with timetabled teaching sessions, course-related learning resources including those in the Library and on the relevant learning platform, and complete assessments and submit these on time. Please refer to the Academic Engagement Procedure at the following link: [Academic engagement procedure](#)

Supplemental Information

Programme Board	Sport, Exercise and Health
Assessment Results (Pass/Fail)	No
Subject Panel	Sport & Exercise L7-11
Moderator	Laura Forrest
External Examiner	A Tocknell
Accreditation Details	N/A
Changes/Version Number	1.01 EE Updated.

Assessment: (also refer to Assessment Outcomes Grids below)

The module will be assessed through two components:

Assessment 1. Class test

Assessment 2. Laboratory report

(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

Assessment Outcome Grids (Footnote A.)

Component 1					
Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Class test (written)	✓	✓		60	0

Component 2					
Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Report of practical/ field/ clinical work			✓	40	0
Combined Total For All Components				100%	0 hours

Footnotes

- A. Referred to within Assessment Section above
 B. Identified in the Learning Outcome Section above

Note(s):

1. More than one assessment method can be used to assess individual learning outcomes.
2. Schools are responsible for determining student contact hours. Please refer to University Policy on contact hours (extract contained within section 10 of the Module Descriptor guidance note). This will normally be variable across Schools, dependent on Programmes &/or Professional requirements.

Equality and Diversity

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.

The UWS Equality and Diversity Policy can be viewed here:

[UWS Equality and Diversity Policy](#)

(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)