Module Descriptor

Title	Exercise in Extreme Environments		
Session	2026/27	**Status**	Published
Code	SPOR10046	**SCQF Level**	10
Credit Points	10	**ECTS (European Credit Transfer Scheme)**	5
School	**Health and Life Sciences**		
Module Co-ordinator	Laura Forrest		

Summary of Module

This module advances knowledge and practical skills developed in previous exercise physiology modules. Students will explore the impact of extreme environments (e.g. heat, cold, and altitude) on the physiological responses to exercise and critically evaluate strategies to aid performance. The module will equip students with the theoretical knowledge and practical skills that are required to support athletes preparing for competition in extreme conditions.

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

Potential Leader

Successful:

Innovative

Resilient

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	Assess the effects of environmental factors on the physiological responses to exercise.
L2	Critically evaluate strategies to aid sport and exercise performance in extreme environments.
L3	
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 10** Demonstrating a comprehensive knowledge of the physiological responses to exercise in extreme environments. Demonstrating critical understanding of strategies to enhance exercise performance in extreme environments.
Practice: Applied Knowledge and Understanding	**SCQF 10** Using a significant range of laboratory skills to evaluate the influence of extreme environments on the physiological responses to exercise. Designing practical preparation and interventions strategies to minimise the impact of extreme environments on exercise performance.

[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 10** Critically identifying, defining, conceptualising and analysing complex problems and issues.
Communication, ICT and Numeracy Skills	**SCQF 10** Presenting or conveying, formally and informally, information about contemporary issues in exercise physiology. Using a range of ICT applications to support and enhance work at this level and adjust features to suit purpose. Interpreting, using and evaluating a wide range of numerical and graphical data to set and achieve goals/targets.
Autonomy, Accountability and Working with Others	**SCQF 10** Exercising autonomy and initiative in practical sessions but also work as part of a team.

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 will utilise a blended learning approach that combines face-to-face tutorials, workshops and laboratory sessions with asynchronous directed learning supported through the Virtual Learning Environment (VLE). Much of the learning will be achieved through formative practical challenges, directed independent study tasks, group work and/or class discussion, and creative problem solving.	
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)
Tutorial / Synchronous Support Activity	3
Laboratory / Practical Demonstration / Workshop	15
Asynchronous Class Activity	6
Independent Study	76
n/a	
n/a	
TOTAL	100

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

The most recent versions of: Cheung, S. and Ainslie, P. Advanced Environmental Exercise Physiology. Champaign, IL: Human Kinetics. McArdle, W.D., Katch, F.I., and Katch, V.L. Exercise Physiology: Nutrition, Energy, and Human Performance. Baltimore: Lippincott Williams and 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 McGuigan
External Examiner	A Tocknell
Accreditation Details	

Module Appears in CPD catalogue	☒ **Yes** ☐ **No**
Changes / Version Number	3

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Written report of practical work.
Assessment 2
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**
Report of practical/ field/ clinical work	☒	☒	☐	☐	☐	100	0

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
	☐	☐	☐	☐	☐		

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
	☐	☐	☐	☐	☐		
Combined total for all components						100%	0 hours

Change Control

What	**When**	**Who**
A&E as per SEH. CPD ticked.	18/03/2025	Sarah Darroch
Module delivery and hours	March 2026	RK
