



**CORPORATE AND ACADEMIC SERVICES**

**MODULE SPECIFICATION**

Part 1: Basic Data					
Module Title	Physiology of Strength and Conditioning				
Module Code	UISVC3-15-M	Level	M	Version	1.0
UWE Credit Rating	15	ECTS Credit Rating	7.5	WBL module?	No
Owning Faculty	Hartpury	Field	Sport Science		
Department	Sport	Module Type	Standard		
Contributes towards	MSc Strength and Conditioning PG Dip Strength and Conditioning				
Pre-requisites	None	Co- requisites	None		
Excluded Combinations	None	Module Entry requirements	None		
Valid From	01 September 2020	Valid to	01 September 2025		

<b>CVC Approval Date</b>	27 January 2021
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Part 2: Learning and Teaching	
Learning Outcomes	<p>On successful completion of this module students will be able to:</p> <ol style="list-style-type: none"> <li>1. Defend an advanced systematic understanding of the acute responses and chronic adaptations that occur from physical training within a variety of physiological systems (A)</li> <li>2. Critically and analytically assess the complexity of the dose-response relationship of physical training (A)</li> <li>3. Critically evaluate the literature pertaining to the growth and maturational processes that impact upon the development of young athletes (A)</li> <li>4. Critically evaluate the literature pertaining to ageing and the effectiveness of resistance training in older adults (A)</li> </ol>

Syllabus Outline	<p>This module aims to elevate knowledge and understanding of planning and programming for athletic development from a holistic approach. Broadly, this module will include the following topics:</p> <ul style="list-style-type: none"> <li>• Neuromuscular responses and adaptations to exercise</li> <li>• Cardiovascular responses and adaptations to exercise</li> <li>• Bone and tendon responses and adaptations to exercise</li> <li>• Environmental considerations for athletic performance</li> <li>• Population specific responses and adaptations to exercise</li> <li>• The underpinning science and application of energy system specific training protocols</li> </ul>																									
Teaching and Learning Methods	<p>This module focuses on developing a critical understanding of physiological processes that occur from training and the methods of assessing these changes. As such the teaching and learning methods will comprise lectures and seminars where the physiological processes are detailed and critical discussed. Students will be engaged throughout the module via short, informal, discussions and presentations. Thereafter, students will have the opportunity to use methods that are used to measure physiological changes. This module is supported by VLE where students will be able to find all necessary module information. Direct links to information sources will also be provided from within VLE.</p>																									
Key Information Sets Information	<p>Key Information Sets (KIS) are produced at programme level for all programmes that this module contributes to, which is a requirement set by HESA/HEFCE. KIS are comparable sets of standardised information about undergraduate courses allowing prospective students to compare and contrast between programmes they are interested in applying for.</p> <table border="1" data-bbox="475 1099 1385 1491"> <thead> <tr> <th colspan="5"><b>Key Information Set - Module data</b></th> </tr> <tr> <td colspan="5"><i>Number of credits for this module</i></td> </tr> </thead> <tbody> <tr> <td colspan="4"></td> <td style="text-align: center;">15</td> </tr> <tr> <th>Hours to be allocated</th> <th>Scheduled learning and teaching study hours</th> <th>Independent study hours</th> <th>Placement study hours</th> <th>Allocated Hours</th> </tr> <tr> <td style="text-align: center;">150</td> <td style="text-align: center;">27</td> <td style="text-align: center;">123</td> <td style="text-align: center;">0</td> <td style="text-align: center;">150</td> </tr> </tbody> </table> <p>The table below indicates as a percentage the total assessment of the module which constitutes a -</p> <p><b>Written Exam:</b> Unseen written exam, open book written exam, In-class test  <b>Coursework:</b> Written assignment or essay, report, dissertation, portfolio, project  <b>Practical Exam:</b> Oral Assessment and/or presentation, practical skills assessment, practical exam</p> <p>Please note that this is the total of various types of assessment and will not necessarily reflect the component and module weightings in the Assessment section of this module description:</p>	<b>Key Information Set - Module data</b>					<i>Number of credits for this module</i>									15	Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours	150	27	123	0	150
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Reading Strategy	<p><b>Essential readings</b> Any essential reading will be indicated clearly, along with the method for accessing it, e.g. students may be required to purchase a set text, be given a print study pack or be referred to texts that are available electronically or in the Library.</p> <p><b>Further readings</b> Further reading will be required to supplement the set text and other printed readings. Students are expected to identify all other reading relevant to their chosen topic for themselves. They will be required to read widely using the library search, a variety of bibliographic and full text databases, and internet resources. Many resources can be accessed remotely. The purpose of this further reading is to ensure students are familiar with current research, classic works and material specific to their interests from their academic literature.</p> <p><b>Access and skills</b> Formal opportunities for students to develop their library and information skills are provided within the induction period and student skills sessions. Additional support is available through online resources. This includes interactive tutorials on finding books and journals, evaluation information and referencing. Sign up workshops are also offered.</p>																				
Indicative Reading List	<p>The following list is offered to provide the validators / accrediting bodies with an indication of the type and level of information students may be expected to consult. As such, its currency may wane during the life span of the module specification. However, as indicated above, CURRENT advice on readings will be available via other more frequently updated mechanisms.</p> <p>Beachle, T. R. and Earle, R. W., (eds.) (current edition) <i>Essentials of strength and conditioning</i>. Leeds: Human Kinetics.</p> <p>Cardinale, M., Newton, R., and Nosaka, K. (current edition) <i>Strength and conditioning: biological principles and practical applications</i>. Chichester: Wiley-Blackwell.</p> <p>Chandler, T. J. and Brown, L. E., (eds.) (current edition) <i>Conditioning for strength and human performance</i>. Baltimore, MD: Lippincott Williams and Wilkins.</p> <p>Fleck, S. J, and Kraemer W. J. (current edition) <i>Designing resistance training programmes</i>. Leeds: Human Kinetics.</p> <p>Foran, B., ed. (current edition) <i>High-performance sports conditioning</i>. Leeds: Human Kinetics.</p> <p>Hamill, J. and Knutzen, K.M. (current edition) <i>Biomechanical basis of human movement</i>. Philadelphia, PA: Lippincott, Williams &amp; Wilkins.</p> <p>Joyce, D. and Lewindon, D. (current edition) <i>High-performance training for sports</i>. Leeds: Human Kinetics.</p> <p>Liebenson, C. (current edition) <i>Functional training handbook</i>. Philadelphia, PA: Springhouse Publishing Company.</p>																				

	<p>Journals</p> <p>Acta Physiologica Scandinavica</p> <p>European Journal of Sport Sciences</p> <p>International Journal of Sports Physiology and Performance</p> <p>Journal of Applied Physiology</p> <p>Journal of Sport Sciences</p> <p>Journal of Strength and Conditioning Research</p> <p>Strength and Conditioning Journal</p> <p>UKSCA Performance Journal</p>
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<b>Part 3: Assessment</b>	
Assessment Strategy	<p>Throughout the course of this module students will engage with a range of topics regarding training methodologies, response and adaptation related to strength and conditioning practice. This assessment will require students to critically appraise the literature pertaining to each of these topics, and detail how this acquired knowledge can inform practice.</p> <p>To support students in achievement, formative assessment opportunities such as individual feedback and short, informal, discussions and presentations resulting in peer discussion feedback.</p> <p>A student may apply for alternative means of assessment if appropriate. Each application will be considered on an individual basis taking into account learning and assessment needs. For further information regarding this please refer to the VLE.</p>

Identify final assessment component and element	<b>A1</b>	
% weighting between components A and B (Standard modules only)	<b>A:</b> 100%	<b>B:</b> 0%
<b>First Sit</b>		
<b>Component A</b> (controlled conditions) <b>Description of each element</b>	<b>Element weighting</b>	
1. Written report (2,500 words)	100%	

<b>Resit (further attendance at taught classes is not required)</b>		
<b>Component A</b> (controlled conditions) <b>Description of each element</b>	<b>Element weighting</b>	
1. Written report (2,500 words)	100%	
If a student is permitted a retake of the module under the University Regulations and Procedures, the assessment will be that indicated by the Module Description at the time that retake commences.		