University of the West of England
BRISTOL

CORPORATE AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic data						
Module title	Equine Biomechanics					
Module code	UIEXR8-15-2		Level	2	Version	1.2
Owning faculty	Hartpury		Field	Equine Science		
Contributes towards	BSc (Hons) Equestrian Sports Coaching BSc (Hons) Equestrian Sport Science BSc (Hons) Equine Science BSc (Hons) Equine Science (SW) BSc (Hons) Equine Science with Therapy BSc (Hons) Equine Science with Therapy (SW) FdSc Equine Performance FdSc Equine Performance (SW) MSci Equine Science MSci Equine Science					
UWE credit rating	15	ECTS credit rating	7.5	Module type	Standard	
Pre-requisites	None		Co-requisites	Equine Structure and Function (UIEXN4-30-1); ***OR*** Equine Functional Anatomy (UIEXN8-30-1)		
Excluded combinations	None		Module entry requirements	None		
Valid from	01 September 2016		Valid to	01 September 2020		

CAP approval date	03 February 2015

Part 2: Learning and Teaching	
Learning outcomes	On successful completion of this module students will be able to: 1 Evaluate extrinsic and intrinsic stress factors associated with exercise (A, B). 2 Analyse factors which affect kinematics and kinetics of normal equine gait (A, B). 3 Identify and review biomechanical factors associated with elite performance in a range of disciplines (A, B). 4 Appraise the use of quantitative methods for the analysis of equine gait (B).
Syllabus outline	The module aims to provide the student with an underpinning knowledge of equine biomechanics. Topics will include: 1 Gait analysis techniques considering the collection of kinematics and kinetic data. 2 Current understanding of normal equine gait. 3 Stresses placed on the equine locomotion system during competition and training.

	4	Longitudinal development of gait and the effects of training and lameness on these parameters.
	5	Comparative studies of biomechanics of performance horses across a range of equestrian disciplines.

<table>
<tr><td>Contact hours</td><td>Indicative delivery modes:

Lectures, guided learning, seminars etc 33
Self directed study 3
Independent learning 114
TOTAL 150</td></tr>
<tr><td>Teaching and learning methods</td><td>A variety of learning strategies will be used including scheduled learning, where students will receive theoretical underpinning knowledge and also learn how to contextualise theory to the modern performance. It is expected that students will engage with guided independent learning as this is an essential component of modules at undergraduate level. Students will not be able to complete the module successfully without undertaking the required amount of independent learning, which will include a combination of lone study and individual, pair and group work.

Scheduled learning
May include lectures, seminars, tutorials, project supervision, demonstration, practical classes and workshops; fieldwork; external visits; work based learning; supervised time in studio/workshop.

Independent learning
May include hours engaged with essential reading, case study preparation, assignment preparation and completion etc. These sessions constitute an average time per level as indicated in the table below. Scheduled sessions may vary slightly depending on the module choices you make.

Virtual learning environment (VLE)
This specification is supported by a VLE where students will be able to find all necessary module information. Direct links to information sources will also be provided from within the VLE.</td></tr>
<tr><td>Key information sets information</td><td>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.

<u>Key information set – module data</u>

Number of credits for this module 15

<table>
<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>150</td><td>36</td><td>114</td><td>0</td><td>150</td></tr>
</table>

The table below indicates as a percentage the total assessment of the module which constitutes:

1 Written exam: Unseen written exam, open book written exam, in-class test.
2 Coursework: Written assignment or essay, report, dissertation, portfolio, project.
3 Practical exam: Oral assessment and/or presentation, practical skills assessment, practical exam.</td></tr>
</table>

	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: Total assessment of the module: Written exam assessment percentage 50% Coursework assessment percentage 50% Practical exam assessment percentage 0% 100%
Reading strategy	***Essential readings*** 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. Module guides will also reflect the range of reading to be carried out. ***Further readings*** 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 the academic literature. ***Access and skills*** 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.
Indicative reading list	The following list is offered to provide validation panels/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, including the module guide. • Alexander, R. (Current Edition) *Principles of Animal Locomotion*. UK: Princetown University Press. • Back, W. and Clayton, H. (Current Edition) *Equine locomotion*. London: W.B. Saunders. • Biewener, A. (Current Edition) *Animal Locomotion*. New York: Oxford University Press. • Clayton, H.M. (Current Edition) *The Dynamic Horse*. Canada: Sports Horse Publications. • Marlin, D. and Nankervis, K. (Current Edition) *Equine Exercise Physiology*. Blackwell Publishing. • Nigg, B.M. and Herzog, W. (Current Edition) *Biomechanics of the musculoskeletal system*. Chichester: J. Wiley & Sons. • Rantanen, N.W. and Hauser, M.L. (Current Edition) *The equine athlete: tendon, ligament and soft tissue injuries*. Dubai International Equine Symposium. USA: Matthew R. Rantanen Design. Journals: • Equine Veterinary Journal. • Equine and Comparative Physiological Journal. • Equine Veterinary Education.

Part 3: Assessment			
Assessment Strategy	Students will be assessed via an open book examination at the end of the semester to enable them to effectively use the knowledge gained from the module to demonstrate deep understanding of topics. A written assignment will also be utilised to enable students to develop research and reading strategies in problem solving situations. Students will be offered formative assessment opportunities during the course of the module to check knowledge (but that do not contribute to the module mark). Feedback on assignment drafts prior to the summative assessment hand-in date will also be available. In line with the College's commitment to facilitating equal opportunities, 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.		
Identify final assessment component and element	Open book written examination.		
% weighting between components A and B (Standard modules only)		**A:**	**B:**
		50%	50%
First Sit			
Component A (controlled conditions) **Description of each element**		**Element weighting**	
1	Open book written examination (1 hour)	100%	
Component B **Description of each element**		**Element weighting**	
1	Written assignment (1,250 Words)	100%	
Resit (further attendance at taught classes is not required)			
Component A (controlled conditions) **Description of each element**		**Element weighting**	
1	Open book written examination (1 hour)	100%	
Component B **Description of each element**		**Element weighting**	
1	Written assignment (1,250 Words)	100%	
If a student is permitted an **EXCEPTIONAL RETAKE** of the module the assessment will be that indicated by the Module Description at the time that retake commences.			