



Module Specification

Part 1: Basic Data					
Module Title	Racehorse Performance and Rehabilitation				
Module Code	UIEV7M-45-2	Level	2	Version	1
Credit Rating	45	ECTS Credit Rating	22.5	WBL module?	No
Owning Faculty	Hartpury	Field	Equine		
Department	Equine	Module Type	Standard		
Contributes towards	BSc (Hons) Racehorse Performance and Rehabilitation BSc (Hons) Racehorse Performance and Rehabilitation (SW)				
Pre-requisites	None		Co- requisites	None	
Excluded Combinations	None		Module Entry requirements	None	
Last Major Approval Date	23 February 2017		Valid from	01 September 2017	
Amendment Approval Date			Revised with effect from		

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"> 1. Apply anatomical and physiological knowledge to exercising, training and rehabilitation practices in racehorses. (A, B) 2. Evaluate physiological and biomechanical responses to exercise and training in the racehorse. (A, B) 3. Critically appraise the short and long-term effectiveness of training regimens to prepare racehorses for competition. (B) 4. Analyse factors which affect the kinematics and kinetics of racehorse gait. (A) 5. Apply knowledge and understanding of functional anatomy to evaluate the efficacy of racehorse rehabilitation regimens. (A)
Syllabus Outline	<ul style="list-style-type: none"> • Racehorse conformation • Core principles of training: preparation for competition, enhancing performance and success, promoting career longevity and preventing injury • Physiological, biomechanical and behavioural responses to exercise and training • Training types: endurance, strength and conditioning, high intensity training • Evaluation of fitness and fatigue • Training regimens: goal setting, periodisation, tapering, motor skill acquisition, post injury • Alternative training methods: high speed treadmill, swimming, underwater treadmill, ground schooling etc • Training practices in the racing industry: flat, hurdle, steeplechase, trotting, point to point, pre-training, sales preparation, youngster preparation • Impact of training on the racehorse and common risk factors for injury during

	<p>training and competition</p> <ul style="list-style-type: none"> • Introduction to racehorse rehabilitation practice for common injuries: lameness, musculoskeletal soft tissue damage, tendon, ligaments, spinal pathology, foot pain, dorsal metacarpal disease, pain. • Introduction to high speed treadmill and hydrotherapy (swimming, water treadmill) use in training and rehabilitation of racehorses • Introduction to ground schooling for rehabilitation • Biomechanics of equine gaits; normal racehorse gait • Gait analysis in the horse: kinetic and kinematic analysis • Assessment tools and an introduction to data analysis: fitness, fatigue, gait analysis 																									
<p>Teaching and Learning Methods (and contact hours)</p>	<p>A variety of learning strategies will be used including lectures, seminars and practical demonstrations utilising the Hartpury equine yard and equine therapy centre facilities. Visits to training and rehabilitation establishments will also occur so students can observe theory in practice and provide valuable opportunities to learn from industry professionals. Case study evaluation will be a key component of the delivery strategy for this module and will be used in the classroom and via the VLE to enable students to contextualise the principles covered into real world practice. Students will also be exposed to a variety of fitness and gait assessment tools and techniques, and will have the opportunity to use these for data capture. They will also be encouraged to analysis this data and use it to evidence training and rehabilitation decisions.</p> <p>Industry visits to observe training and rehabilitation practices will also provide students with valuable opportunities to question industry professionals and learn from industry practice. Students are also encouraged to volunteer in the Hartpury equine therapy centre to further develop their rehabilitation knowledge.</p> <p>In addition, students will be expected to engage in independent learning and complete a range of guided learning activities throughout the course of the module. This independent and guided learning will involve activities designed to support students with the preparation of assessments and developing their subject knowledge via further reading. Teaching and learning will be supported via the VLE.</p>																									
<p>Key Information Sets Information</p>	<p>HEFCE require Key Information Sets (KIS) to be produced at programme level for all undergraduate programmes of more than one year in length. 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="483 1491 1382 1843"> <thead> <tr> <th colspan="5">Key Information Set - Module data</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="border: 2px solid black;">45</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>450</td> <td>216</td> <td>234</td> <td>0</td> <td>450</td> </tr> </tbody> </table> <p>The table below indicates as a percentage the total assessment of the module which constitutes a -</p> <p>Written Exam: Unseen written exam, open book written exam, In-class test Coursework: Written assignment or essay, report, dissertation, portfolio, project Practical Exam: Oral Assessment and/or presentation, practical skills assessment, practical exam</p>	Key Information Set - Module data					<i>Number of credits for this module</i>									45	Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours	450	216	234	0	450
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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 reading

Core material will be indicated to the student via module guides and dedicated VLE module presence. No requirement for the purchase of set text(s) will be made and students will have full access to library services, online applications and inter-library loans.

Further reading

Students will be encouraged to source reading from a variety of sources including those indicated by the module leader to aid the development of literature searching and facilitate the start of a critical appreciation of the quality of different sources of information. Students should utilise the library catalogue service, a variety of databases, internet sources and lay press publications. Additional resources and interactive activities will be available via the VLE and other online platforms enabling them to be accessed remotely.

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 and tutorials are also offered.

Indicative Reading List

The following list is offered to 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.

Books:

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.

Clayton, H.M. (Current Edition) *Conditioning sport horses*. Saskatoon, Canada: Sport Horse Publications.

Fitzgeorge-Parker, T. (Current Edition) *Training the Racehorse*. London, UK: J. A. Allen.

Higgins, A.J. and Snyder, J.R. ed. (Current Edition) *The equine manual*. Edinburgh: Elsevier Saunders.

	<p>Hinchcliff, K.W., Kaneps, A.J. and Geor, R.J. (Current Edition) <i>Equine exercise physiology: the science of exercise in the athletic horse</i>. Edinburgh. Elsevier Saunders.</p> <p>Hodgson, D.R. and Rose, R.J., ed. (Current Edition) <i>The athletic horse: Principles and practices of equine sports medicine</i>. Philadelphia: W. B. Saunders.</p> <p>Marlin, D. and Nankervis, K. (Current Edition) <i>Equine exercise physiology</i>. Oxford: Blackwell Science.</p> <p>Murch, P.M. (Current Edition) <i>Training Thoroughbred Horses</i>. Vermont, USA: Echo Point Books & Media.</p> <p>Nigg, B.M. and Herzog, W. (Current Edition) <i>Biomechanics of the musculoskeletal system</i>. Chichester: J. Wiley & Sons.</p> <p>Williams, J.M. and Evans, D. (Current Edition) <i>Training for Equestrian Performance</i>. Wageningen, Netherlands: Wageningen Press.</p> <p>Websites: British Horseracing Authority: http://www.britishhorseracing.com/</p> <p>National Trainers Federation: http://www.racehorsetrainers.org/homepage/index.asp</p> <p>Thoroughbred Owner and Breeder: http://www.ownerbreeder.co.uk/</p> <p>Journals: Comparative Exercise Physiology Equine Veterinary Journal Equine Veterinary Education Journal of Veterinary Behavior Veterinary Clinics of North America: Equine Practice The Veterinary Journal</p> <p>Industry Magazines: Trainer Magazine</p>
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Part 3: Assessment

Assessment Strategy	<p>The assessment strategy for the module is via an open book written examination and a written assignment. The open book written examination has been chosen to facilitate broad assessment of knowledge and understanding of the subject matter while allowing students to demonstrate their ability to apply this knowledge. Examples of this include the evaluation of training and exercise responses within training regimens, use of technology to inform training and rehabilitation decision-making, and the application of different rehabilitation methods in racehorses such as treadmill use to promote a successful return to the racetrack. The assignment will be case study driven and will require students to use the knowledge and understanding they have developed through the module to appraise the efficacy of training practices in racehorses.</p> <p>To support student achievement, formative opportunities to engage in reflection and to evaluate individual case studies, with staff feedback, will be provided during seminars and lectures. Formative feedback will also be provided throughout the module via tutorial support, class discussions and various exercises that enable students to apply key training and biomechanical principles. Interactive VLE tasks will also be used to develop knowledge and understanding of the subject and to practice applying key knowledge and critical skills to different case studies</p> <p>To support students' development, formative opportunities to engage in</p>
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	<p>interactive learning opportunities which test their understanding of the topics covered by the module will be provided via the module page on the VLE. Interactive VLE tasks will also be used to develop individuals' academic, reflective and evaluation skills through verbal, written and digital communication. Students are also encouraged to engage with relevant academic skill development workshops available outside of the module to support personal development.</p> <p>In line with the Institution'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.</p>
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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 (2.5 hours)	100%	
Component B Description of each element	Element weighting	
1. Written assignment (2500 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 (2.5 hours)	100%	
Component B Description of each element	Element weighting	
1. Written assignment (2500 words)	100%	

If a student is permitted a retake of the module under the Academic Regulations and Procedures, the assessment will be that indicated by the Module Specification at the time that retake commences.