



Module Specification

Part 1: Basic Data					
Module Title	Analysis of Racehorse Performance				
Module Code	UIEV7P-15-3	Level	3	Version	1
Credit Rating	15	ECTS Credit Rating	7.5	WBL module?	No
Owning Faculty	Hartpury	Field	Equine Science		
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. Demonstrate a critical awareness of the complexity of performance analysis in the racehorse. (A) 2. Critically evaluate the concept of evidence informed performance analysis, with reference to performance measures applied to the racehorse. (A) 3. Critically reflect on the role and impact of industry professionals on racehorse performance. (A) 4. Conceptualise and defend strategies that could be used to predict performance in the racehorse (A). 5. Critique prohibitive substance management and testing protocols applied across the global racing industry, and theorise how these could impact on racehorse performance. (A)
Syllabus Outline	<p>The following will be discussed in the context of current health and safety, legislative and best practice guidelines:</p> <ul style="list-style-type: none"> • Performance analysis within training: surface, training regimens, cumulative canter / gallop distance, motor skill acquisition, development of neural plasticity, evaluation of fitness and fatigue • Concept of evidence informed performance analysis • The role of musculoskeletal function in locomotor and race performance • Influence of physiological, biomechanical and conformational constraints on maximal locomotor performance and injury risk • Biochemical and haematological analysis • Evaluation of poor / sub-optimal performance: disease, respiratory health, cardiovascular health, orthopaedic health, pain

	<ul style="list-style-type: none"> • Role of exercise testing in racehorse performance analysis • Impact of the industry professionals on racehorse performance: trainer, rider / jockey: work rider, retained jockeys, jockey physiological and psychological health, allied paraprofessionals: veterinary team, farrier, therapists • Modern technologies and computer based data / performance analysis systems used in racing • Pre-, peri- and post-natal factors which can influence performance • Predictive analysis of performance • Epidemiological analysis of performance and injury risk • Genetic analysis of performance and injury risk: candidate gene identification, PCR, application in industry • Performance enhancement, monitoring and industry regulation 																									
<p>Teaching and Learning Methods (and contact hours)</p>	<p>This module uses group learning sessions with opportunities for small group work and practical sessions in the laboratory and equestrian centre where students will be exposed to technologies utilised to analyse performance in the racing industry. Students will also be provided with opportunities to observe racehorses during training and racing to enable them to critically evaluate factors which contribute to success, poor performance and injury.</p> <p>The integration of industry professionals within lectures and industry visits to different facilities, alongside appraisal of the equine facilities on site, will enable students to apply theory into real-world contexts. 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 1373 1378 1727"> <thead> <tr> <th colspan="5">Key Information Set - Module data</th> </tr> </thead> <tbody> <tr> <td colspan="5"><i>Number of credits for this module</i></td> </tr> <tr> <td colspan="4"></td> <td style="border: 1px solid black; 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;">50</td> <td style="text-align: center;">100</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>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> <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>	Key Information Set - Module data					<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	50	100	0	150
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Reading Strategy	<p>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.</p> <p>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.</p> <p>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.</p>																				
Indicative Reading List	<p>The following list is offered to provide the Curriculum Approval Committee/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>Books: Binns, M., Morris, T. (Current Edition) <i>Thoroughbred Breeding: Pedigree theories and the science of genetics</i>. London, UK: J.A. Allen & Co Ltd. Bruns, E. (1990) <i>Breeding values and estimation of genetic trends in riding horses</i>. Proceedings of the 4th World Congress on Genetics Applied to Livestock Production, Edinburgh. Clayton, H.M. (Current Edition) <i>The Dynamic Horse</i>. Canada: Sports Horse Publications. Hinchcliff, K.W., Kaneps, A.J. and Geor, R.J. Eds. (Current Edition) <i>Equine exercise physiology: the science of exercise in the athletic horse</i>. Edinburgh: Elsevier Saunders. Hughes, M. Franks, I. (Current Edition) <i>Essentials of Performance Analysis in Sport</i>. London, UK: Routledge. O'Donoghue, P. (Current Edition) <i>Research Methods for Sports Performance Analysis</i>. London, UK: Routledge. Morag, K. (Current Edition) <i>Veterinary laboratory medicine clinical biochemistry and haematology</i>. Oxford: Blackwell Science. Pfeiffer, D. (Current Edition) <i>Veterinary Epidemiology: an introduction</i>. Oxford, UK: Wiley-Blackwell. Roman, S.A. (Current Edition) <i>Dosage: Pedigree and performance</i>. Neenah, USA: The Russell Meerdink Company Ltd. Specogna, M. (Current Edition) <i>Become a Winner Claiming Thoroughbred Racehorses: handicap like a pro, claim like a pro, a guide for the beginner or pro</i>. Bloomington, USA: iUniverse Williams, J.M. and Evans, D. Eds. (Current Edition) <i>Training for Equestrian</i></p>																				

Performance. Wageningen: Wageningen Press.

Websites:

Centaur Biomechanics: <http://www.centaurbiomechanics.co.uk/>

Equinome: <http://www.equinome.com/>

Fine Equinity: <http://www.fineequinity.com/>

Racing Post: <http://www.racingpost.com/>

British Horseracing Authority: <http://www.britishhorseracing.com/>

Journals:

Comparative Exercise Physiology

Equine Veterinary Journal

Equine Veterinary Education

Journal of Veterinary Behaviour

Veterinary Clinics of North America: Equine Practice

The Veterinary Journal

Part 3: Assessment

Assessment Strategy	<p>This module is assessed by a seen and open book written examination (3 hours). The open book format has been chosen to facilitate assessment of students' knowledge and understanding of the diverse nature and complexity of performance analysis data and mechanisms utilised for the racehorse. It also provides opportunities for students to demonstrate their capacity to synthesise knowledge to produce evidence informed debate and problem solve. The examination will contain both unseen and seen questions.</p> <p>Students are encouraged to read a wide range of different materials that will promote their own development and aid in the acquisition of the critical skills necessary for the successful completion of their studies. To support students' development, formative opportunities to engage in interactive learning opportunities which test understanding of the topics covered by the module, will also be provided via the module page on the VLE. Interactive VLE and in class tasks structured around example examination themes will also be used to develop individuals' critical skills with verbal feedback provided. 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	Seen written examination	
% weighting between components A and B (Standard modules only)	A:	B:
	100%	0%
First Sit		
Component A (controlled conditions) Description of each element	Element weighting	
1. Seen written examination (3 hours)	100%	
Component B Description of each element	Element weighting	

Resit (further attendance at taught classes is not required)		
Component A (controlled conditions) Description of each element	Element weighting	
1. Seen written examination (3 hours)	100%	
Component B Description of each element	Element weighting	
<p>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.</p>		