



CORPORATE AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic data					
Module title	Systems Biology				
Module code	UINXK4-15-1	Level	1	Version	1
Owning faculty	Hartpury	Field	Animal and Land Science		
Contributes towards	FdSc Animal Behaviour & Welfare FdSc Animal Science & Management BSc Animal Behaviour & Welfare				
UWE credit rating	15	ECTS credit rating	7.5	Module type	Standard
Pre-requisites	None		Co-requisites	None	
Excluded combinations	None		Module entry requirements	None	
Valid from	01 September 2013		Valid to	01 September 2019	

CAP approval date	29 May 2013
--------------------------	-------------

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 Describe the structure of the animal body at a cellular level and relate this to the gross anatomy and management of the animal (A, B); 2 Identify how the anatomical and physiological mechanisms of a range of animals have adapted to their ecological niches (A); 3 Demonstrate knowledge of the scientific principles behind the growth and development of animals (A); 4 Demonstrate a scientific understanding of animal physiology and relate it to a range of species and management (A); 5 Understand the physiological mechanisms involved in homeostasis and relate this to effective management of a range of animals (A); 6 Demonstrate preparation of laboratory reports to industry standard (B); 7 Process, interpret and present data using appropriate qualitative and quantitative techniques (A, B).
Syllabus outline	<ol style="list-style-type: none"> 1 Basic tissue and cell types. 2 Development of tissues and cells into organs and organ systems. 3 Structure of the major organ systems. 4 Integration of systems in control of bodily functions. 5 Anatomical plains, directions, boundaries and modes of movement of body segments and joints. <p>The above will be contextualised by application to a range of species, including rodents, lagomorphs, equidae and carnivores which are commonly kept as companion or laboratory animals.</p>

Contact hours	<p>Indicative delivery modes:</p> <table border="0"> <tr> <td>Lectures, guided learning, seminars etc</td> <td style="text-align: right;">33</td> </tr> <tr> <td>Self directed study</td> <td style="text-align: right;">3</td> </tr> <tr> <td>Independent learning</td> <td style="text-align: right;">114</td> </tr> <tr> <td>TOTAL</td> <td style="text-align: right;">150</td> </tr> </table>	Lectures, guided learning, seminars etc	33	Self directed study	3	Independent learning	114	TOTAL	150												
Lectures, guided learning, seminars etc	33																				
Self directed study	3																				
Independent learning	114																				
TOTAL	150																				
Teaching and learning methods	<p>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.</p> <p>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.</p> <p>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.</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> <p>Key information set – module data</p> <table border="0"> <tr> <td>Number of credits for this module</td> <td style="text-align: right; border: 1px solid black;">15</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Hours to be allocated</th> <th style="width: 25%;">Scheduled learning and teaching study hours</th> <th style="width: 25%;">Independent study hours</th> <th style="width: 20%;">Placement study hours</th> <th style="width: 15%;">Allocated hours</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">150</td> <td style="text-align: center;">36</td> <td style="text-align: center;">114</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> <ol style="list-style-type: none"> 1 <i>Written exam</i>: Unseen written exam, open book written exam, in-class test. 2 <i>Coursework</i>: Written assignment or essay, report, dissertation, portfolio, project. 3 <i>Practical exam</i>: Oral assessment and/or presentation, practical skills assessment, practical exam. <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> <p>Total assessment of the module:</p> <table border="0"> <tr> <td>Written exam assessment percentage</td> <td style="text-align: center; border: 1px solid black;">0%</td> </tr> <tr> <td>Coursework assessment percentage</td> <td style="text-align: center; border: 1px solid black;">50%</td> </tr> <tr> <td>Practical exam assessment percentage</td> <td style="text-align: center; border: 1px solid black;">50%</td> </tr> <tr> <td></td> <td style="text-align: center;">100%</td> </tr> </table>	Number of credits for this module	15	Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated hours	150	36	114	0	150	Written exam assessment percentage	0%	Coursework assessment percentage	50%	Practical exam assessment percentage	50%		100%
Number of credits for this module	15																				
Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated hours																	
150	36	114	0	150																	
Written exam assessment percentage	0%																				
Coursework assessment percentage	50%																				
Practical exam assessment percentage	50%																				
	100%																				

Reading strategy	<p>Essential reading Any essential reading will be indicated clearly, along with the method for accessing it, e.g. students may be expected to purchase a set text, be given a 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.</p> <p>Further reading Further reading is advisable for this module, and students will be encouraged to explore at least one of the titles held in the library on this topic. A current list of such titles will be given in the module handbook and revised annually.</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 are also offered.</p>
Indicative reading list	<p>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.</p> <ul style="list-style-type: none"> • Akers, R.M. (Current Edition) <i>Anatomy and Physiology of domestic animals</i>. Oxford: Blackwell Publishing. • Aspinall, V. (Current Edition) <i>Introduction to veterinary anatomy and physiology textbook</i>. Edinburgh: Butterworth Heinemann. • Boyd, J.S. (Current Edition) <i>Colour atlas of clinical anatomy of the dog and cat</i>. London: Mosby-Wolfe. • Evans, H.E. & Christensen, G.C. (Current Edition) <i>Miller's anatomy of the dog</i>. Philadelphia: W. B. Saunders Company. • Frandson, R.D. & Spurgeon, T.L. (Current Edition) <i>Anatomy and physiology of farm animals</i>. Philadelphia: Lea & Febiger. • Jenkins, G. (Current Edition) <i>Anatomy and physiology: from science to life</i>. Hoboken, N.J.: John Wiley. • Ruckebusch, Y., Phaneuf, L-P. & Dunlop, R. (Current Edition) <i>Physiology of small and large animals</i>. Philadelphia: BC Decker Inc. • Thibodeau, G. (Current Edition) <i>Anatomy and physiology</i>. St. Louis, Mo: Mosby Elsevier. <p>The above sources give an indication of the area of study involved. Although students may be directed to some specific titles, they will also be encouraged to identify other relevant material for themselves.</p>

Part 3: Assessment

Assessment strategy	<p>Assessment for this module will consist of two elements of controlled conditions assessment, and one laboratory report. Component A will take the form of a practical examination, involving work stations to practically identify anatomical features and physiological outcomes, largely derived from practical sessions undertaken throughout the module. This form of assessment will address a wide range of learning outcomes in a practical format to assess whether the student is able to apply the knowledge they have gained throughout the module.</p> <p>Component B will take the form on a single element of assessment, as a laboratory report of one or more practical sessions. Students will be required to write up their practical session, and interpret outcomes and findings in line with current understanding and research related to animal behaviour or welfare. This form of assessment is designed to encourage engagement in the practical sessions and develop skills of application to industry and research. The laboratory report assignment is chosen to facilitate in depth utilisation of laboratory skills gained in practicals and relating findings/observations to material learnt in lectures and gained in additional study via analysis, evaluation and discussion.</p> <p>Feedback will be provided throughout the module via tutorial support, class discussions, short exercises and review of results of practical sessions, in addition to that written on assignment submissions and examination scripts.</p> <p>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 VLE.</p>		
Identify final assessment component and element	Practical examination		
% weighting between components A and B (Standard modules only)	A:	B:	
	50%	50%	
First sit			
Component A (controlled conditions)		Element weighting	
Description of each element			
1	Practical examination (30 minutes)	100%	
Component B		Element weighting	
Description of each element			
1	Laboratory report (1250 words)	100%	
Resit (further attendance at taught classes is not required)			
Component A (controlled conditions)		Element weighting	
Description of each element			
1	Practical examination (30 minutes)	100%	
Component B		Element weighting	
Description of each element			
1	Laboratory report (1250 words)	100%	
<p>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.</p>			