



MODULE SPECIFICATION

Part 1: Basic Data					
Module Title	Advanced Animal Nutrition				
Module Code	UINV4S-15-3	Level	3	Version	2.0
UWE Credit Rating	15	ECTS Credit Rating	7.5	WBL module?	No
Owning Faculty	Hartpury	Field	Animal and Land Science		
Department	Animal and Land	Module Type	Standard		
Contributes towards	BSc (Hons) Animal Management (Top- Up) BSc (Hons) Animal Science BSc (Hons) Animal Science (SW) BSc (Hons) Applied Animal Science BSc (Hons) Applied Animal Science (SW) BSc (Hons) Applied Animal Science with Therapy BSc (Hons) Applied Animal Science with Therapy (SW)				
Pre-requisites	Applied Animal Nutrition (UINXSP-15-2)	Co- requisites	None		
Excluded Combinations	None	Module Entry requirements	None		
Last Major Approval Date	12 January 2015	Valid from	01 September 2016		
Amendment Approval Date	V2.0- 31 July 2017	Revised with effect from	V2.0- 01 September 2017		

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. Examine the nutritional requirements in a range of animals and problems associated with meeting their demands. (A) 2. Evaluate least cost formulation in the production of complete and compound feeds. (A) 3. Critically evaluate the major causes of metabolic disorders in a range of animals and the use of nutrition in their prevention and control. (A,B) 4. Analyse the use of gas production analysis in modelling forage degradability and digestibility in herbivores. (B) 5. Critically review the use of probiotics and prebiotics within the animal nutrition industry. (B) 6. Critically evaluate the role of animal nutrition in mitigating environmental issues based on current scientific research. (A)
Syllabus Outline	<ul style="list-style-type: none"> • The differing nutritional requirements between different animal species and problems in meeting these demands within a captive environment • The use of probiotics and prebiotics in animal diets • Gas production investigations in establishing forage degradability parameters and determining the effectiveness of diet supplements.

	<ul style="list-style-type: none"> • Common metabolic disorders in animals and nutritional management in either alleviating or preventing them. • The role of animal nutrition in mitigating environmental issues. • Implementation of least cost formulation on complete and compound feeds and the ramifications on animal nutrition and health • Current animal research topics and its bearing on animal performance and well-being. 																				
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 learning</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 learning	3	• Independent learning	114	Total	150												
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Teaching and Learning Methods	<p>A variety of learning strategies will be used including lectures, practicals, seminars and self-directed learning. Teaching will include visits from industry professionals in order to support the wider relevance of this module to career development. Students will be expected to engage in independent learning throughout the module. This will involve the preparation and writing of an assignment, revision for the examination and further reading to support formal teaching.</p> <p>Scheduled learning includes lectures, seminars, tutorials, demonstration, practical and external visits.</p> <p>Independent learning includes 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 module 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 (or equivalent).</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="483 1424 1377 1825"> <thead> <tr> <th colspan="5">Key Information Set - Module data</th> </tr> <tr> <td colspan="4">Number of credits for this module</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> </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> <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					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
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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 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 study 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.

Books

Blas, C. and Wiseman J. (Current Edition) *The Nutrition of the Rabbit*. New York: CABI Publishing.

Burger, I.H. ed. (Current Edition) *The Waltham Book of Companion Animal Nutrition*. Oxford: Pergammon.

Cooper, M.R. and Johnson, A.W. (Current Edition) *Poisonous Plants in Britain and their Effects on Animals and Man*. London: HMSO.

Ewing, W.N. and Tucker L.A. (Electronic Resource) *The Living Gut*. Nottingham: Nottingham University Press.

Frape, D. (Current Edition) *Equine Nutrition and Feeding*. Oxford: Blackwell Science Ltd.

Hill, J. (Current Edition) *Nutritional Physiology of the Horse*. Nottingham: Nottingham University Press.

Lonsdale, C. (Current Edition) *Straights: Raw Materials for Animal Feed Compounders and Farmers*. Marlow: Chalcombe Publications.

	<p>McDonald, P., Edwards, R.A., Greenhalgh, J.F.D. and Morgan, C.A. (Current Edition) <i>Animal Nutrition</i>. Harlow: Longman Scientific & Technical.</p> <p>National Research Council. (Current Edition) <i>Nutrient Requirements of Dairy Cattle</i>. Washington, D.C, USA: National Academy Press.</p> <p>National Research Council. (Current Edition) <i>Nutrient Requirements of Horses</i>. Washington, D.C, USA: National Academy Press.</p> <p>National Research Council. (Current Edition) <i>Nutrient Requirements of Laboratory Animals</i>. Washington, D.C, USA: National Academy Press.</p> <p>National Research Council. (Current Edition) <i>Nutrient Requirements of Dogs and Cats</i>. Washington, D.C, USA: National Academy Press.</p> <p>Patton, R. (Electronic Resource) <i>Ruined by Excess, Perfected by Lack: The Paradox of Pet Nutrition</i>. Nottingham: Nottingham University Press.</p> <p>Journals</p> <p>Journal of Animal Science</p> <p>Journal of Applied Animal Nutrition</p> <p>Livestock Science</p>
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Part 3: Assessment	
Assessment Strategy	<p>The written examination (1.5 hours) has been chosen to facilitate broad assessment of the knowledge and understanding and intellectual skills gained throughout the module in a time-limited and controlled setting. A range of questions will be utilised to ensure students have thorough knowledge that can be applied to a range of species and scenarios.</p> <p>The practical report (1500 words) 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>Formative feedback can be gained from this module in the module delivery, on blackboard, in tutorials and in revision sessions. Summative feedback can be gained upon assignment and exam 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 leaning and assessment needs. For further information regarding this please refer to the VLE.</p>

Identify final assessment component and element	Written Examination	
% weighting between components A and B (Standard modules only)	A: 50%	B: 50%
First Sit		
Component A (controlled conditions) Description of each element	Element weighting	
1. Written examination (1.5 hours)	100%	
Component B	Element weighting	

Description of each element	
1. Case study practical report (1500 words)	100%
Resit (further attendance at taught classes is not required)	
Component A (controlled conditions) Description of each element	Element weighting
1. Written examination (1.5 hours)	100%
Component B Description of each element	Element weighting
1. Case study practical report (1500 words)	100%
<p>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.</p>	