HARTPURY UNIVERSITY

Module Specification

Part 1: Identification						
Module Title	Applied Animal Nutrition					
Module Code	HANXSP-15-5		Level	*5*	Version	1.2
Department	Animal	Credit Rating	15	ECTS Credit Rating	7.5	
Contributes towards	BSc (Hons) Animal Science BSc (Hons) Applied Animal Science BSc (Hons) Applied Animal Science with Therapy FdSc Animal Science and Management FdSc Veterinary Nursing Science (SW) FdSc Equine Veterinary Nursing Science (SW)					
Pre-requisites	Animal Nutrition (HANXK5-15-4); OR Animal Husbandry for Veterinary Nurses (HVNXNT-15-4)		Module Type	Standard		
Excluded Combinations	None		Module Entry requirements	None		
Last Major Approval Date	V1.0 – 1 September 2017		Valid from	01 September 2018		
Amendment Approval Date	V1.1 – 31 August 2018 V1.2 – 06 August 2019		Revised with effect from	V1.1 – 01 September 2018 V1.2 – 01 September 2019		

Part 2: Learning and Teaching	
Learning Outcomes	On successful completion of this module students will be able to: 1 Analyse the feeding values of a variety of foodstuffs available for animals (B). 2 Relate feeding behaviour to animal husbandry and productivity, taking into consideration physiological and welfare factors (A). 3 Justify the nutrient and energy requirements of animals based on scientific concepts and principles at different stages of their lives (A, B). 4 Design and evaluate diets using the principles of scientific rationing whilst understanding their limitations (B). 5 Assess the implications of the legislation surrounding the animal feed industry and review the benefits for animal and human health (A). 6 Design and format a ration formulation spreadsheet to match the supply nutrients and energy with the animal's requirements (B).
Syllabus Outline	1 Classification and availability of foodstuffs and their suitability for different animals, commercial manufacture of animal feeds and legislation. 2 Nutrient requirements of animals at different stages in their lives: maintenance, working, reproduction, production and old age.

	3 Scientific rationing, formulation and its limitations: systems of rationing; use of formulae, excel spreadsheets; animal requirements and feed data handling; comparisons with rations actually fed to different species of animals. 4 Effects of deficiencies and excesses of feed constituents: protein, vitamins, minerals. 5 Application of scientific principles and concepts surrounding different energies, vitamins and minerals and anti-nutritive factors to animal diets. 6 Implications of animal behaviour and management on animal nutrition and gastro-intestinal disorders
Teaching and Learning Methods	***Scheduled learning*** May include lectures, seminars, tutorials, project supervision, demonstration, practical classes, external visits. ***Independent learning*** May include hours engaged with essential reading, case study and/or seminar preparation, assignment preparation and completion etc. ***Virtual learning environment (VLE) (or equivalent)*** 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).
Unistats Information	HEFCE require Unistats information to be produced at programme level for all undergraduate programmes of more than one year in length. These are comparable sets of standardised information about undergraduate courses allowing prospective students to compare and contrast between programmes they are interested in applying for.

Expected learning hours for the module:

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

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

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

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	0%
Practical exam assessment percentage	50%
	100%

Reading Strategy	Core material will be indicated to the student via pre-course material, module guides and through their accessing a dedicated VLE programme presence.

	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 catalogue, 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 and wider professional sources. ***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 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. • 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. • McDonald, P., Edwards, R.A., Greenhalgh, J.F.D., and Morgan, C.A. (Current Edition) *Animal Nutrition.* Harlow: Longman Scientific & Technical. • National Research Council (Current Edition) *Nutrient Requirements of Dairy Cattle.* Washington, D.C: National Academy Press. • National Research Council (Current Edition) *Nutrient Requirements of Horses.* Washington, D.C: National Academy Press. • National Research Council (Current Edition) *Nutrient Requirements of Laboratory Animals.* Washington, D.C: National Academy Press. • National Research Council. (Current Edition) *Nutrient Requirements of Dogs and Cats*. Washington, D.C: National Academy Press. • Patton, R. (Electronic Resource) *Ruined by Excess, Perfected by Lack: The Paradox of Pet Nutrition.* Nottingham: Nottingham University Press.
	• Thomas, C. (Current Edition) *Feed into Milk*. Nottingham: Nottingham University Press. • Wills, J.M. and Simpson, K.W., eds. (Current Edition) The *Waltham Book of Clinical Nutrition of the Dog and Cat.* Oxford: Pergammon. Journals • Animal Nutrition. • Journal of Animal Physiology and Animal Nutrition. Websites and Databases • BioOne. • Science Direct. *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.*

Part 3: Assessment	
Assessment Strategy	The written examination 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. The practical report 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. 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.

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 hour)	100%
Component B **Description of each element**	**Element weighting**
1. Practical report (1,250 words)	100%

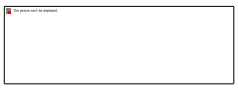
Resit (further attendance at taught classes is not required)	
Component A (controlled conditions) **Description of each element**	**Element weighting**
1. Written examination (1 hour)	100%
Component B **Description of each element**	**Element weighting**
1. Practical assignment (1,250 words)	100%
If a student is permitted a retake of the module, the assessment will be that indicated by the Module Specification at the time that retake commences.	

Module Amendment Log

Module Title:	Applied Animal Nutrition
Module Code:	HANXSP-15-5
Initial Approval Date:	01 September 2017

Changes: *Most recent at the top of the page*

Current version number: v.1.1	
Outline Change Details: update of pre-requisites to remove module HANXGQ-20-4: module no longer running.	
Approval Committee and Date:	CVC 2019 08 06
Change approved with effect from:	01 September 2019
Resulting new version number:	v.1.2

Current version number: v.1.0	
Outline Change Details: Adopting new naming system for programmes	
Material Alteration: No	
Rationale: To reflect the Hartpury Academic Regulations	
Change requested by: Academic Registrar **Signature**:  **Date**: 01 August 2018	
Approval Committee and Date:	Curriculum Validation Committee 2018 08 31
Change approved with effect from:	01 September 2018
Resulting new version number:	v.1.1