PRIFYSGOL glyndŵr UNIVERSITY

MODULE SPECIFICATION FORM

Module Title: Advanced Animal Welfare	Level: 6	Credit Value: 20

Module code: ANM611 (if known)	Cost Centre: GAAN	JACS2 code: D328

Semester(s) in which to be offered:1	With effect from: September 2011

Office use only: To be completed by AQSU:	Date approved: August 2013 Date revised: October 2018 Version no: 2

Existing/New: New	Title of module being replaced (if any): ANM603

Originating Academic Department:	Biology & Environment	Module Leader:	Tamsin Young

Module duration (total hours):	200	Status: core/option/elective (identify programme where appropriate):	Core
Scheduled learning & teaching hours	50		
Independent study hours	150		
Placement hours			

Programme(s) in which to be offered: BSc (Hons) Equine Science and Welfare Management	Pre-requisites per programme (between levels): NA

Module Aims:

1. To explore how stress can be managed in a range of environments and situations.
2. To show an understanding of the physiological and behavioural adaptations of animals resulting from modern use and husbandry.

Expected Learning Outcomes:

Knowledge and Understanding:

1. Critically evaluate the ethics associated with the modern use and husbandry of animals
2. Critique the physiological changes resulting from modern use and husbandry of animals
3. Evaluate the behavioural impacts resulting from modern use and husbandry of the animals

Transferable/Key Skills and other attributes:

    Independent learning skills, problem-solving, self-management, communication, creative thinking, use of ICT.

Assessment:

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting	Duration (eg, if exam or presentation)	Word count (or equivalent if appropriate)
1	1, 2, 3	Report	60%	N/A	2400
2	2 & 3	In-class test	40%	60mins	1600 equivalent

Coursework One:
The student will produce a report that investigates the welfare and ethics regarding modern use and husbandry of a given animal (Learning outcome 1). The report must make clear connections between physiological changes and the behavioural impacts resulting from modern use and husbandry of the animal (relevant to their degree programme). Modern uses of animals that may be covered include sporting disciplines, animals used for work such as the Police dogs or animal assisted therapy and companion animals. Husbandry issues such as inappropriate social grouping, intensive rearing practices and transportation may be included. The physiological effects of stress on the animal (Learning outcome 2) must be included in the report, together with examples of behavioural coping responses (Learning outcome 3) such as stereotypic behaviours (Learning outcomes 2 & 3).

Coursework Two:
 An in-class test will cover the physiological and behavioural changes experienced by animals exposed to stressful conditions. The test will comprise of multiple choice and short answer questions (Learning outcomes 2 & 3).

Learning and Teaching Strategies:

The module will enable students' the opportunity to explore the ethical concerns surrounding husbandry and modern use of animals. It will also explore animal welfare law. The physiological and behavioural impacts resulting from today's use and care of animals will be covered. Both beneficial impacts such as raising health and fitness levels will be included as well as impacts that can be potentially harmful to animals such as the manifestation of negative stress and associated effects that may be detrimental to health and welfare. Students will be expected to evaluate the module content and draw from previous modules to make recommendations for improving the welfare of animals in today's society.

Delivery of module content will consist of taught sessions and study visits. Delivery methods will incorporate lectures, talks from guest speakers and student-centred research. Ethical concerns linked to modern use and care of animals will be debated and visits to the work-place included e.g. a dairy farm and rescue centre. These visits will provide opportunities for applied and experiential learning and group work will permit students to evaluate theory and practice in order to make welfare recommendations.

The module will also develop practical investigative skills. Students will have opportunity to use The Observer (Noldus Technology, The Netherlands) to analyse behaviour from video footage. They will also be able to investigate heart rate, via use of the Polar heart rate monitor and its relevant computer software.

Syllabus outline:

- Intensive management/husbandry systems
  – stabling, feeding, turn-out, fitness, training, transportation and competing.
- Modern uses of horses
  – leisure, competition, work.
- Definitions of stress
  – eustress, neutral, distress, chronic stress, exhaustion.
- Animal sentience, animal suffering.
- Physiological effects of stress
  – alarm reaction – adrenaline, adaptation - hypothamic-pituitary adrenal axis (cortisol), sympatho-adrenomedullar pathway (heart rate).
- Behavioural responses to stress
  – behavioural changes, stereotypies, staleness.
- Welfare recommendations
  – housing, turn-out, daily routine, social companionship, dietary needs, fitness, training, transportation, competition.
- Management of risk
  – collection of primary data from horses including physiological e.g. heart rate, and behavioural observations e.g. video footage.
- Use of specialist equipment / software packages
  e.g. The Observer (Noldus Technology, The Netherlands), Equine Polar Heart Rate Monitor (such as RS800).
- Designing and running a seminar.
- Communicating in a seminar context – engagement of specialist and non-specialist audiences.

Bibliography:

Essential reading:

Dependent on seminar topics.

Recommended reading:

Fraser, D. (2008) *UFAW Understanding Animal Welfare*. Wiley and sons. Bognor Regis.

Hausberger, M, Sondergaard, E, Martin-Rosset, W (2007) *Horse Behaviour and Welfare.* Wageningen: Wageningen Academic Publishers.

McGreevy, P. (2004). *Equine Behaviour: A Guide for Veterinarians and Equine Scientists*. London: Saunders Publishing

Regan, T. (2004) *Empty cages facing the challenge of animal rights.* Rowman and Littlefield, Lanham, Maryland

Skipper, L (2007) *Understanding Horse Behaviour.* London: New Holland Publishers.

Waran, N (2007) *The Welfare of Horses.* Dordrecht: Springer Publishing.

Webster, J. (2005). *Animal Welfare. Limping towards Eden.* Oxford: Blackwell Publishing Limited.

UFAW (2011) *Management and welfare of farm animals*. Wiley Blackwell. Oxford

Zeitler-Feicht, M. H. (2004). *Horse behaviour explained: Origins, treatment and prevention of problems*. London: Manson Publishing.

Reference will be made to articles from journals such as:

- Applied Animal Behaviour Science
  e.g. Cooper, J.J, Mcall, N, Johnson, S & Davidson, H.P.B (2005) *The short-term effects of increasing meal frequency on stereotypic behaviour of stabled horses.* Applied Animal Behaviour Science. 90, 351-364.

- World Rabbit Science.
  Trocino A., Xiccato, G (2006) Animal welfare in reared rabbits: a review with emphasis on housing systems. **World Rabbit Science**, North America, 14: 77 - 93

- Animal Welfare
  e.g. Dawkins, M (2004) *Using behaviour to assess animal welfare.* Animal Welfare. 13:S3-7.

- Equine Veterinary Journal
  e.g. Goodwin, D, Davidson, H.P.B & Harris, P (2002) *Foraging enrichment for stabled horses: effects on behaviour and selection.* Equine Veterinary Journal. 34, 7, 686-691.

Indicative web based materials:

http://asab.nottingham.ac.uk/ethics/index.php
www.polar-equine.com