

Module code: MOD010984	Version: 1 Date Amended: 07/Mar/2025
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1. Module Title
Equine Clinical Bioveterinary Science

2a. Module Leader
Romain Paillot

2b. School
Writtle School of Agriculture, Animal and Environmental Sciences

2c. Faculty
Faculty of Science and Engineering

3a. Level
5

3b. Module Type
Standard (fine graded)

4a. Credits
15

4b. Study Hours
150

5. Restrictions			
Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:	BSc Equine Science		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

This module builds on the knowledge you gained in the first year in Foundation of Equine Science. It aims to provide you with a deeper understanding of both infectious and non-infectious diseases, primarily using the horse species as an example. It includes analysis of the causes, prevention, control and treatment of these diseases.

For the main equine microbiological and parasitic pathogens, their pathogenicity and associated immune response will be presented. You'll investigate what types of implications are involved in the onset and development of infectious and non-infectious diseases. You'll also evaluate the effect of different extrinsic and intrinsic factors on the development of these diseases.

The module aims to develop your knowledge of health issues that affect horses in a range of environments and situations both nationally and internationally. Throughout the module, you'll critically evaluate a series of academic research papers in order to achieve a broad overall view of the issues concerning equine health. Your assessment will give you the opportunity to dive into a given topic which will provide development of your analytical skills, your technical knowledge on the subject and your ability to research the market to develop a product.

6b. Outline Content

- **CONTEXT:** Definitions of health and disease; major causes of wastage in equids.
- **DISEASE PREVENTION AND CONTROL:** Immune response and vaccinations: efficacy, design, protocols; Codes of Practice; Notifiable Diseases; human and equine hygiene; therapy and treatment.
- **NON-INFECTIOUS DISEASE** causes and treatments: respiratory (RAO, EIPH, laryngeal), metabolic (metabolic syndrome, PPID, Cushings), colic (various causes), skin (sarcoids, melanomas), lameness (common causes: foot problems, tendons, bursal developments, laminitis, navicular).
- **INFECTIOUS DISEASES:** causes: viruses, bacteria, fungi and parasites. Basic structure, important infectious diseases and their treatments (e.g. **VIRAL:** Influenza, herpes, rotavirus, African Horse Sickness, West Nile Virus; **BACTERIAL:** Strangles, Rhodococcus equi, CEM, tetanus).
- Opportunities are available for the development of academic and professional skills.

6c. Key Texts/Literature

The reading list to support this module is available at: <https://readinglists.aru.ac.uk/>

6d. Specialist Learning Resources

All the equipment and computer software required for this module is available on the ARU Writtle campus. Equine facilities, laboratory and lab equipment (e.g. microscopy), biomechanic equipment.

7. Learning Outcomes (threshold standards)		
No.	Type	On successful completion of this module the student will be expected to be able to:
1	Knowledge and Understanding	Appraise the magnitude and importance of disease and wastage in equines.
2	Knowledge and Understanding	Identify and analyse the major causes of infectious and non-infectious diseases in horses and their pathophysiology.
3	Intellectual, practical, affective and transferrable skills	Analyse the practical implications and the efficacy of the methods of equine disease prevention and control.
4	Intellectual, practical, affective and transferrable skills	Appraise the quality of product used in the equine health industry.

8a. Module Occurrence to which this MDF Refers				
Year	Occurrence	Period	Location	Mode of Delivery
2026/7	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	Hours	Learning Outcomes	Details of Duration, frequency and other comments
Lectures	24	1-4	Formal Scheduled Teaching - – Lectures
Other teacher managed learning	12	1-4	Seminars and workshops
Student managed learning	114	1-4	Self-directed learning, background reading and study for formative and summative assessments
TOTAL:	150		

9. Assessment for the above Module Occurrence					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Coursework	1-4	100 (%)	Fine Grade	30 (%)
Coursework (2000 Words booklet and 500 Words poster)					

Assessment components for Element 010			
Component No.	Assessment Title	Submission Method	Components needed for Mark Calculation?
010/1	Leaflet on disease		Best 2 out of 2. All components used in calculation are equally weighted
010/2	Poster on treatment product		

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*).

In addition, students are required to:

- (a) achieve the qualifying mark for each element of fine graded assessment as specified above**
- (b) pass any pass/fail elements**

[* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]