

Module code: MOD010977	Version: 1 Date Amended: 08/Oct/2025
-------------------------------	--

1. Module Title
Veterinary Interventions and Diagnostics

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
30

4b. Study Hours
300

5. Restrictions			
Type	Module Code	Module Name	Condition
Pre-requisite:	MOD010962	Foundations of Equine Science	Compulsory
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:	BSc Equine Science , BSc Business Management, BSc Equine Therapy Rehabilitation and Performance		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

This module provides an in-depth exploration of diagnostic techniques and therapeutic interventions, primarily focused on the horse species. You'll develop understanding in diagnostic imaging, which regroups advanced imaging techniques such as radiography, ultrasonography, and MRI, understanding their applications, benefits and limitations in diagnosing equine health issues. A second key areas of study includes laboratory diagnostics, which covers the use of various laboratory tests, including blood work, microbiological cultures and molecular diagnostics to identify and monitor diseases in horses. You'll study the pathological processes and changes that occur in equine diseases, learning how clinical signs and laboratory results are interpreted to make accurate diagnoses. This knowledge will allow you to understand the rationale behind effective prevention strategy, control and treatment plans against the main infectious and non-infectious diseases that affect horses. By the end of the module, you'll be equipped to understand and define the advantages and disadvantages of current diagnostic and therapeutic strategies used in equine clinical settings.

The module aims to develop your knowledge of veterinary interventions and diagnostics currently used to address health issues that affect horses.

6b. Outline Content

- Diagnostic Techniques
 - o Imaging (e.g. Radiography, ultrasound, MRI specific to equine patients)
 - o Laboratory Diagnostics (e.g. Blood tests, microbiology, serology for equine diseases)
 - o Clinical Pathology (e.g. Biopsy, cytology, and interpretation of lab results)
 - Infectious Diseases Diagnostics and Interventions including but not limited to:
 - o Equine Influenza: Diagnostic methods and vaccination protocols
 - o Strangles (*Streptococcus equi*): Identification, isolation, and treatment strategies
 - o Equine Herpesvirus (EHV): Diagnostic tests and management plans
 - o Equine Infectious Anemia (EIA): Coggins test and control measures
 - o West Nile Virus: Diagnostic approaches and preventive care
 - Non-Infectious Diseases Diagnostics and Interventions
 - o Laminitis: Diagnostic imaging and therapeutic shoeing
 - o Colic: Diagnostic procedures (e.g., abdominal ultrasound) and surgical interventions
 - o Equine Metabolic Syndrome (EMS): Diagnostic criteria and management strategies
 - o Osteoarthritis: Diagnostic imaging and joint therapies
 - o Respiratory Conditions (e.g. equine asthma): Diagnostic tests and environmental management
 - Therapeutic Interventions
 - o Medical Treatments: Use of antibiotics, antivirals and anti-inflammatories
 - o Surgical Interventions (presentation of the main techniques for colic surgery, arthroscopy, and other common procedures)
 - o Non-Surgical Interventions (e.g. Physiotherapy and rehabilitation techniques) · Practical Sessions and Case Studies
- Real-world case studies to apply diagnostic and therapeutic knowledge o Integration of diagnostic data to develop comprehensive treatment plans This outline emphasises the key aspects of diagnostics and interventions in equine veterinary practice, ensuring a thorough understanding of both the techniques and their applications. 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), and 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	Demonstrate theoretical proficiency in diagnostic techniques.
2	Intellectual, practical, affective and transferrable skills	Evaluate and theorise management of equine infectious diseases.
3	Knowledge and Understanding	Evaluate and theorise management of non-infectious equine conditions
4	Intellectual, practical, affective and transferrable skills	Understand and explain therapeutic interventions.
5	Intellectual, practical, affective and transferrable skills	Integrate diagnostic data into a comprehensive treatment plan.

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	72	1-5	Formal Scheduled Teaching - Lectures, seminars and workshops
Other teacher managed learning	0	None	None
Student managed learning	228	1-4	Self-directed learning, background reading and study for formative and summative assessments
TOTAL:	300		

9. Assessment for the above Module Occurrence					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Coursework	2,4	60 (%)	Fine Grade	30 (%)
Case study on infectious diseases, focused on diagnostics and therapeutic intervention.					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
011	Practical	1,3,5	40 (%)	Fine Grade	30 (%)
Presentation about management and treatment plan for a non-infectious conditions.					
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]					