Module 1 (undertaken in Year 2 if completing the MRes as a part time student)

Title:	**Principles of Epidemiology and Health Management**
Module/Unit Coordinator(s):	Dr Annette Boerlage & Dr Maria Costa

Module/Unit Summary

Module/Unit Aims:
The aims of this module are to develop an understanding of core epidemiological concepts and their implications in the context of zoonotic disease, animal health, health management, and public health.
Students will learn to use these concepts to develop and plan epidemiological investigations to understand their relevance for the prevention, control, and eradication of transmissible diseases.
This module will also aim to develop students' skills to interpret and critically assess epidemiological studies, publications, and reports, and to scientifically communicate relevant epidemiological findings to targeted audiences.
Module/Unit Intended Learning Outcomes:
On successful completion of this module/unit, learners will be able to:
LO1: Explain and evaluate the fundamental principles of epidemiology and health management of zoonoses and animal diseases.
LO2: Evaluate the factors that impact and influence the transmission of disease and appropriate control measures.
LO3: Critique and justify epidemiological approaches and their application to health management of zoonoses and animal diseases.
LO4: Demonstrate effective and proficient scientific communication skills using a range of media to a diversity of audiences with various levels of expertise.
Module/Unit Content:

The module will provide the fundamental principles of epidemiology and health management. Initially, by providing grounding in the basic principles including definitions, different types of study, dynamics of disease transmission, diagnostic testing, and disease surveillance. This will be followed by health management, including control and mitigation, AMR, and introduction to molecular epidemiology with relevant links to One Health. Towards the end of the module, we will bring the taught subjects out into a wider context, by discussing biosecurity, stakeholder engagement, measuring impact and consequences for trade and policy. We will finish by taking another step back to understand the role of epidemiology in public health and climate change.

Expected Learning Hours:*	
Total number of hours of learning[1]	300
Classroom learning[2]	55
Practical learning	15
Work-based learning	0
Directed online learning	40
Independent learning	190