# Module Definition Form (MDF)

| Module code: MOD007180 | **Version:** 4 **Date Amended:** 20/Apr/2022 |
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| 1. Module Title |
|---|
| Animal Health and Disease |

| 2a. Module Leader |
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| Gerbrandus Boots |

| 2b. School |
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| School of Life Sciences |

| 2c. Faculty |
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| 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:** | None | | |

## LEARNING, TEACHING AND ASSESSMENT INFORMATION

### 6a. Module Description

Animal health and disease are broad and fascinating topics. We will focus on the contribution of nutrition and parasites to health and disease, discussing how animals interact with food from a biochemical point of view, how changes in nutrition can affect health, and how animals deal with parasites. Nutrition is a crucial factor in animal health - after all, you are what you eat. Therefore, what should we feed animals in our care? We will also discuss how different parasites affect animal health, the effects these parasites have on the health of their human caretakers, and how diseases can spread through a population and between species.

You will learn through a combination of lectures, practical sessions, including laboratory analysis, problem solving and computer simulations, giving you ample opportunity to delve into the world of animal health and disease from different angles. In doing so you will hone your skills in nutritional analysis, parasite identification and assessment of parasite burden. These skills are applicable to careers in a range of sectors, such as analytical laboratories in the pet food industry, zoos, and animal rescue centres. We will also discuss how evolution has provided the world with a fascinating diversity of highly adapted pathogens, and ask fundamental questions such as how hosts avoid parasites and whether parasites can actually change the behaviour of animals. Knowledge about nutrition and disease is fundamental for anyone planning on working closely with animals, whether your own pet, in zoos, or wildlife in general.

### 6b. Outline Content

During this module you will explore the following topics:

Heath assessments and basic nutritional requirements

Vitamins, minerals, nutrients; nutritional deficiencies

Parasite classification and assessment of parasite burden

Parasite-host interactions: co-evolution

Zoonoses and One Health

Disease prevention

Epidemiology and conservation

### 6c. Key Texts/Literature

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

### 6d. Specialist Learning Resources

Laboratory

| 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 | Outline the means by which animal health can be affected by a range of diseases and nutritional factors. |
| 2 | Knowledge and Understanding | Explain different means of transmission of disease through animal populations, including zoonoses. |
| 3 | Intellectual, practical, affective and transferrable skills | Critically evaluate and draw conclusions regarding the ecology and evolution of parasites and the impacts they have upon their hosts. |
| 4 | Intellectual, practical, affective and transferrable skills | Apply practical skills for estimating parasite burden and nutritional balance. |

| 8a. Module Occurrence to which this MDF Refers | | | | |
|---|---|---|---|---|
| **Year** | **Occurrence** | **Period** | **Location** | **Mode of Delivery** |
| 2025/6 | 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 | 27 | 1-3 | 9 x 3 hrs lectures/activities |
| Other teacher managed learning | 6 | 1-4 | 1 x 3 hr practical + 3 hrs revision |
| Student managed learning | 117 | 1-4 | Background reading, online activities, preparation for lectures and practicals, and completion of 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 | 2-4 | 60 (%) | Fine Grade | 30 (%) |
| **Coursework (2000 words equivalent).** | | | | | |

| Assessment components for Element 010 | | | | |
|---|---|---|---|---|
| **Component No.** | **Assessment Title** | **Submission Method** | **Weighting (%)** | **Components needed for Mark Calculation?** |
| 010/1 | Practical skills test | Scheduled Activity: Timetabled assessment task | 15 (%) | All |
| 010/2 | Practical report | Canvas | 85 (%) | |

| **Assessment No.** | **Assessment Method** | **Learning Outcomes** | **Weighting (%)** | **Fine Grade or Pass/Fail** | **Qualifying Mark (%)** |
|---|---|---|---|---|---|
| 011 | Examination Cambridge | 1-3 | 40 (%) | Fine Grade | 30 (%) |
| **Exam 1 hour (1000 words equivalent).** | | | | | |

**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]**