Module Definition Form (MDF)

Module code: MOD010057	**Version:** 1 **Date Amended:** 08/Aug/2024

1. Module Title
Strategies and Issues in Animal Breeding

2a. Module Leader
Nnenna Ugwu

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

2c. Faculty
Faculty of Science and Engineering

3a. Level
6

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:			

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

The physiology of reproduction in a range of animal species will be reviewed with reference to recent developments in our understanding of these reproductive systems. Factors that determine reproductive success will be evaluated with review of methods of enhancing fertility. Critical comparison of the reproductive strategies employed by a variety of animal species will be an important aspect. Modern breeding systems and the influence of new technologies will also be appraised.

Students who undertake this module will develop the ability to collate and assess scientific information. The information collated will be from a range of sources including peer-reviewed journals, text books and internet sources. Their ability to interpret the results of published studies and critically assess these findings will be enhanced. The students will also develop the ability to present, in a written (word-processed) form, coherent and well-reasoned argument.

6b. Outline Content

PHYSIOLOGY AND ENDOCRINOLOGY Comparison of reproductive strategies employed by different species. To include recent development in understanding of ovarian follicle development, oocyte quality; the uterine environment (health and function); embryo development and the maternal regulation of pregnancy. Male reproductive system, measures of assessing sperm quality. Developments in understanding of the hormonal control of the reproductive processes.

MANIPULATION OF REPRODUCTION Using exogenous hormones to manipulate the reproductive process (e.g. FSH, oestrogen, progesterone, prostaglandin F2?). Application of novel techniques to animal breeding industries e.g. immunisation against endogenous hormones, in vitro technologies for enhancing reproduction.

ENVIRONMENTAL INFLUENCES Effects of environmental factors on reproductive processes (e.g. nutrition, stress and health status) and reproductive dysfunction - ovarian follicular/luteal cysts, nutritional anoestrus, embryo loss, abortion.

EVALUATING BREEDING SYSTEMS Targets for fertility, monitoring and evaluating reproductive performance.

6c. Key Texts/Literature

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

6d. Specialist Learning Resources

None

7. Learning Outcomes (threshold standards)

No.	Type	On successful completion of this module the student will be expected to be able to:
1	Intellectual, practical, affective and transferrable skills	Evaluate reproductive strategies and methods of manipulating reproduction in a range of animal species.
2	Intellectual, practical, affective and transferrable skills	Critically evaluate the factors that influence reproductive success
3	Knowledge and Understanding	Discuss animal breeding systems and the influence of new technologies.

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	36	1-3	Lectures/practicals/visits
Other teacher managed learning	0	None	None
Student managed learning	114	1-3	Self-Directed Learning
TOTAL:	150		

9. Assessment for the above Module Occurrence

The assessment for some modules includes a presentation (see below for details on how this particular module is assessed). We recognise that presenting, especially to a large group, can cause significant anxiety or distress for some students. If this may affect you, please contact your Module Leader or the Disability and Neurodiversity Service as early as possible. We will work with you to consider appropriate reasonable adjustments. Depending on your individual needs, these might include, for example, presenting to a smaller group or presenting only to a member of academic staff.

Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Coursework	2	50 (%)	Fine Grade	30 (%)
Coursework (2000 Words) - A study of factors that influence reproductive success. May comprise of a report of 2000 words maximum length or analysis of fertility data from an animal breeding unit.					
Assessment No.	**Assessment Method**	**Learning Outcomes**	**Weighting (%)**	**Fine Grade or Pass/Fail**	**Qualifying Mark (%)**
011	Examination Writtle	1,3	50 (%)	Fine Grade	30 (%)
Exam (3 Hours) - 3 hours closed book. Essay style questions.					

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]