

Module Title:	Animal Nutrition_Semesterisation
Language of Instruction:	English
Credits:	10
NFQ Level:	6
Module Delivered In	4 programme(s)
Teaching & Learning Strategies:	Learners will be encouraged to actively partake in class discussions and group work. Site visits to farms to discuss nutritional management will be in discussion group format. Case studies, (e.g. IFA smart farming) will be used to demonstrate nutritional management strategies that improve the performance of the farm business. Practical lab sessions will explore the chemistry of feed and how nutritional composition is determined. Students will have the opportunity to visit feed compounders and nutrition service providers in the south east as part of their course.
Module Aim:	The aim of this module is develop the learners understanding of nutrition as it applies to animals with a particular emphasis on farm animal production. The various sources of feed and the relative inclusion levels in monogastric and ruminant diets will be explored as well as some of the nutritional management considerations in a well-run animal production system. Students will also have an understanding of the consequences of animal nutrition on the wider environment including the impact on consumer health.
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Demonstrate a knowledge of animal nutrition as it applies to various farmed animals and the interaction between nutrition and management of the animal
LO2	Describe the inter-relationship between nutrients and the consequences of these interactions for the nutritional wellbeing of the animal
LO3	Explain how a typical on-farm and commercial ration for monogastric and ruminant animals is formulated
LO4	Be capable of completing a feed budget for an animal production system
LO5	Demonstrate an understanding of the environmental impact of animal nutrition and strategies to minimise this.
Pre-requisite learning	
Module Recommendations <i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
Incompatible Modules <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements <i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
No requirements listed	

Module Content & Assessment

Indicative Content

Feeding management of farmed animals

Interaction between the animal and its environment, factors controlling feed intake in farmed animals, the interaction between the animal and its herd mates and the effect of illness on intake in animals.

The physical and chemical properties of animal feed

The physical preparation of feeds, nutrient composition, digestibility, energy and protein systems for ruminant and monogastric diets

Ration Formulation

Production and procurement of quality ingredients – grain, by-products of the brewing, distilling, bio-ethanol and plant oil industries, forages for ruminant and equine animals, assessing the quality of rations vs. least cost formulations, home grown feeds options including storage and utilisation, feed delivery systems and formulation of diets for ruminant and monogastric animals

The role of animal nutrition in environmental footprint of feeds

Assessment of feeds based on the environmental foot print (e.g. through the use of FeedPrint or other platforms), understanding how this can be manipulated through correct diet formulation and feed management

Assessment Breakdown	%
Practical	60.00%
End of Module Formal Examination	40.00%

No Continuous Assessment

No Project

Practical

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	Students will complete two nutritional chemistry labs focusing on the determination of carbohydrates in animal feed and protein fractions within animal feed	1,2,3	20.00	n/a
Practical/Skills Evaluation	Students to complete ration formulation labs based on the knowledge acquired during practical demonstrations on this topic. The formulation lab will be completed for dairy cattle, beef cattle and sheep.	1,2,3,4	20.00	n/a
Practical/Skills Evaluation	Students will complete reports on filed labs that will take place during the semester. These reports will be submitted electronically in a timely manner following the completion of field lab.	1,2,3,4	20.00	n/a

End of Module Formal Examination

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	Students will complete a formal end of semester examination.	1,2,3,4,5	40.00	End-of-Semester

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	12 Weeks per Stage	3.00
Practicals	12 Weeks per Stage	3.00
Independent Learning Time	12 Weeks per Stage	6.00
Total Hours		144.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_SWOAG_B	Bachelor of Science (Honours) in Organic Agriculture	4	Mandatory
CW_SWSFM_B	Bachelor of Science (Honours) in Sustainable Farm Management and Agribusiness	4	Mandatory
CW_SWOAG_D	Bachelor of Science in Organic Agriculture	4	Mandatory
CW_SWSFM_D	Bachelor of Science in Sustainable Farm Management and Agribusiness	4	Mandatory