

Module Details

Title:	Equine Anatomy & Physiology
Module Title:	Equine Anatomy and Physiology
Language of Instruction:	English

Module Code:	PHIO	Duration:	1 Semester
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Credits:	5
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NFQ Level:	6
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Field of Study:	Crop and livestock production
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Valid from:	
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Module delivered in:	1 programme(s)
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Head of Department:	Anne Meaney
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Module author:	Anne Meaney
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Teaching and learning strategies:	Teaching will take place using a variety of mechanisms with lectures and tutorials. Students will also engage in practical work. Learners will be encouraged to engage with material outside of class time using a variety of on-line resources.
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Module aim:	The aim and objective of this module is to equip the learner with the knowledge, skill and competence to understand in depth the structure and function of the horse's body
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Learning outcomes:	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Recognise the signs of ill-health in a horse
LO2	Record animal identification, health status, treatments and treatments administered
LO3	Explain the structure and function of the horse's body
LO4	Explain how the equine body works as an entity
LO5	Recognise common disorders of the equine system and know when to call a vet
LO6	Have an understanding of the veterinary diagnostic equipment and treatments used for specific equine diseases and disorders
LO7	Understand important concepts of equine genetics and how they relate to the selection and breeding of horses

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	

Module Content and Assessment

Indicative Content	
General Health and Identification	
1:1:1 Identify the vital signs of a healthy horse 1:1:2 Identify points of a horse 1:1:3 Assess health by topographical observation and appraisal 1:1:4 Recognise sites of pain / discomfort (general and specific) 1:1:5 Assess body weight and condition 1:1:6 Record animal	

identification, health status, treatments and treatments administered Practical: • Check TPR of a horse • Scan for a microchip • Check markings on a passport • Weight measuring.
Skeletal System 1:2:1 List the functions of the skeleton 1:2:2 Identify bones of the skeletal frame 1:2:3 Describe types of bone, their physical composition and chemical properties 1:2:4 Identify joints of a horse and explain how they work 1:2:5 Differentiate between human and equine skeleton 1:2:6 Explain developmental Orthopaedic Diseases (DODs)
Muscular System 1:3:1 Identify the main muscle groups, tendons and ligaments 1:3:2 Outline the function of muscles, tendons and ligaments 1:3:3 Explain the functions of muscle and tendons in relation to movement 1:3:4 Describe common tissue injuries and their management
Circulatory and Lymphatic System 1:4:1 Outline the general principals and functions of the circulatory system 1:4:2 Identify the major arteries and veins of the horse 1:4:3 List the main constituents of blood 1:4:4 Understand blood sample testing 1:4:5 Explain the circulatory relationship with major diseases 1:4:6 Outline the principles and functions of the lymphatic system
Respiratory System 1:5:1 Understand the anatomy of the upper and lower respiratory system 1:5:2 Outline the functions of the respiratory system 1:5:3 Explain the anatomical changes during exercise 1:5:4 Understand problems and diseases relating to the respiratory system 1:5:5 Describe the veterinary diagnostic equipment and treatments for respiratory disease
Nervous System and Neurological Disorders 1:6:1 Describe the central and peripheral nervous systems 1:6:2 Outline the functions of the nervous system 1:6:3 Understand the sensory systems, sight and sound 1:6:4 Explain the major equine neurological disorders 1:6:5 Understanding the consequences of nerve blocking and Neurectomy 1:6:6 Discuss major neurological disorders: • Trauma • Wobbler syndrome • Equine Herpesvirus • Dummy foal syndrome
Equine Skin 1:7:1 Label a diagram of the main components of the skin 1:7:2 Outline the main functions of the skin 1:7:3 Describe the main skin diseases 1:7:4 Understand diagnostics of skin disorders 1:7:5 Understand wound healing and management
Equine Genetics 1:8:1 Domestication of the horse 1:8:2 Development of horse breeds 1:8:3 The horse genome sequencing project 1:8:4 Horse genetic diversity and breed relationships 1:8:5 Coat colour genetics 1:8:6 Health and disease genetics 1:8:7 Exercise and performance genomics

Assessment breakdown	%
Continuous Assessment	40.00%
End of Module Formal Examination	60.00%

Continuous Assessment				
Assessment type	Assessment description	Outcome addressed	% of total	Assessment date
Essay	Assignment Approx. 1,500 words	1,2,3,4,5,6,7	40.00%	N/A

No Project

No Practical

End of Module Formal Examination				
Assessment type	Assessment description	Outcome addressed	% of total	Assessment date
Formal Exam	Written Examination Approx. 25 questions in total	1,2,3,4,5,6,7	60.00%	End-of-Semester

Reassessment requirement
Exam board Reassessment of this module will consist of a repeat examination. It is possible that there will also be a requirement to be reassessed in a coursework element.

SETU Carlow Campus reserves the right to alter the nature and timing of assessments.

Module Details

Title:	Equine Breeding APPROVED		
Module Title:	Equine Breeding		
Language of Instruction:	English		
Module Code:	AGRI	Duration:	1 Semester
Credits:	10		
NFQ Level:	6		
Field of Study:	Crop and livestock production		
Valid From:	Summer 2022 (January 2022)		
Module Delivered In	1 programme(s)		
Head of Department:	Anne Meaney		
Module Author:	Anne Meaney		
Teaching & Learning Strategies:	Teaching will take place using a variety of mechanisms with lectures and tutorials. Students will also engage in practical work. Learners will be encouraged to engage with material outside of class time using a variety of on-line resources		
Module Aim:	The aim and objective of this module is to equip the learner with the knowledge, skill and competence to understand in depth the reproduction system of the mare and stallion, foaling procedures and the underlying theory and practical approach to the management and care of the pregnant mare and foal.		

Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Understand the structure and function of the reproductive systems of the mare and stallion
LO2	Discuss breeding, fertility and behavioural patterns of the mare and stallion
LO3	Demonstrate a detailed and comparative knowledge of the physiology of pregnancy, parturition and lactation in the mare
LO4	Demonstrate in-depth understanding of the principles of foaling and the problems that can occur
LO5	Demonstrate a detailed understanding of the care and management of foals
LO6	Discuss and explain the principals involved in the planning and management of breeding programmes

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

Reproductive System of the Mare

2:1:1 Understand the reproductive anatomy of the mare 2:1:2 Describe the oestrus cycle of the mare 2:1:3 Explain the abnormalities of the mare's cycle 2:1:4 Discuss the use of various hormone therapies 2:1:5 Identify various hormones for manipulating the cycle Practical Demonstration: Caslick Procedure

Reproductive System of the Stallion

2:2:1 Understand the reproductive anatomy of the stallion 2:2:2 Discuss equine male reproductive hormones 2:2:3 Understand semen production and analysis 2:2:4 Identify stallion behaviour and abnormal sexual behaviour of stallions 2:2:5 Outline problems that can occur in relation to the stallion genital tract 2:2:6 Describe the procedures of castration and vasectomy Practical Demonstration: Castration

Breeding and Fertility

2:3:1 Discuss fertility and infertility of the mare and stallion 2:3:2 Understand classification of Uterine Disease 2:3:3 Be familiar with Venereal Diseases; CEM, Klebsiella & Pseudomonas 2:3:4 Outline the various treatments for infertility in the mare and stallion 2:3:5 Discuss manipulation of the oestrus cycle 2:3:6 Explain optimal breeding management to ensure sustainable pregnancy rates 2:3:7 Understand the principles of teasing and the patterns of different mares 2:3:8 Discuss the process of semen collection and evaluation 2:3:9 Understand artificial Insemination and embryo transfer 2:3:10 Evaluate the principles, merits and limitations of using reproductive technology in stud management Practical: • Demonstrate the correct method of teasing • Using Stocks and aiding the vet • Covering shed procedures • Observe a mare being scanned

Management of the Pregnant Mare

2:4:1 Explain Gestation, foetal development and growth 2:4:2 Discuss hormones associated with the pregnant mare 2:4:3 Understand placental structure and function 2:4:4 Identify procedures used to diagnosis pregnancy in the mare 2:4:5 Describe common problems in early pregnancy 2:4:6 Discuss twins and their management 2:4:7 Explain procedures used to manage the pregnant mare

Foaling Procedures

2:5:1 List and describe the necessary preparations for foaling duty and foaling 2:5:2 Identify the signs of impending parturition 2:5:3 Discuss the three stages of parturition 2:5:4 Explain normal foal disposition 2:5:5 Explain the procedures used for foaling mares 2:5:6 Discuss dystocia and the issues associated with it 2:5:7 Describe the methods used to correct simple dystocia 2:5:8 Outline the care given to the postpartum mare and explain problems that might occur Practical Demonstration: Examination of placenta post-partum

Care of the Neonatal Foal

2:6:1 Evaluate the respiratory and cardiac function of the neonatal foal 2:6:2 Explain the resuscitation procedure used for a neonatal foal 2:6:3 Outline the physical examination of the new-born foal 2:6:4 Identify problems that may occur with the neonatal foal 2:6:5 Identify the signs of meconium impaction in foals and the methods used to differentiate meconium impact from other causes 2:6:6 Understand the need for colostrum acquisition by the new-born foal and the technique for evaluating equine colostrum 2:6:5 Discuss foal rejection 2:6:5 Understand the care of an orphaned foal and the problems that can arise 2:6:5 Discuss the reasons for fostering and the factors that influence successful fostering Practical Demonstration: Foal resuscitation – CPR Examination of the neonatal foal Evaluation of colostrum

Foal Management

2:6:2 Explain the resuscitation procedure used for a neonatal foal 2:6:3 Outline the physical examination of the new-born foal 2:6:4 Identify problems that may occur with the neonatal foal 2:6:5 Identify the signs of meconium impaction in foals and the methods used to differentiate meconium impact from other causes 2:6:6 Understand the need for colostrum acquisition by the new-born foal and the technique for evaluating equine colostrum 2:6:5 Discuss foal rejection 2:6:5 Understand the care of an orphaned foal and the problems that can arise 2:6:5 Discuss the reasons for fostering and the factors that influence successful fostering Practical Demonstration: Foal resuscitation – CPR Examination of the neonatal foal Evaluation of colostrum

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

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Essay	Assignment 1 Approx. 2500 words	1	40.00	Ongoing

No Project

No Practical

End of Module Formal Examination

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	Written Examination Approx. 25 questions in total	1,2,3,4,5,6	60.00	End-of-Semester

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

Module Details

Title:	Horse Care and Management –
Module Title:	Horse Care and Management
Language of Instruction:	English

Module Code:	MGMT	Duration:	1 Semester
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Credits:	10
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NFQ Level:	6
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Field of Study:	Crop and livestock production
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Valid from:	
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Module delivered in:	1 programme(s)
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Head of Department:	Anne Meaney
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Module author:	Anne Meaney
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Teaching and learning strategies:	Teaching will take place using a variety of mechanisms with lectures and tutorials. Students will also engage in practical work. Learners will be encouraged to engage with material outside of class time using a variety of on-line resources.
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Module aim:	The aim and objective of this module is to equip the learner with the skills and competences to apply a practical approach to the management of a stud farm. The module also provides learners with and in-depth understanding of horse and their welfare
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Learning outcomes:	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Outline the principals involved in the management of an equine establishment and implement an equine farm management plan including social licence to operate an equine breeding practice
LO2	Describe key statutory rights and obligations in the employment relationship
LO3	Demonstrate knowledge of infectious, contagious and zoonotic diseases
LO4	Discuss issues relating to animal health, safety and welfare; disease; diagnosis, treatment
LO5	Explain the regulatory and legislative framework in relation to animal welfare
LO6	Evaluate conformational characteristics of a horse and identify and discuss common conformational limb and hoof defects
LO7	Explain the importance of hoof care and the principles of corrective and remedial farriery
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	

Module Content and Assessment

Indicative Content
Farm Management 3:1:1 Identify health and safety hazards within the stable / paddock environments 3:1:2 Discuss successful farm design 3:1:3 Outline the basic principles involved in planning an equine establishment including road access, fencing, pasture, paddocks, barns and exercise equipment 3:1:4 Understanding of employment legislation and obligations
Infectious Diseases and Bio-Security 3:2:1 Explain general equine viral infections and diseases 3:2:2 Describe general bacterial infections 3:2:3 Identify infectious skin conditions 3:2:4 Explain bio-security protocols for stud farms 3:2:5 State the guidelines on isolation of horses and personnel
First Aid and General Treatment 3:3:1 Identify and prevent emergency situations 3:3:2 Describe various tendon injuries and treatments 3:3:3 Recognise signs of fractures and discuss the initial first aid treatment 3:3:4 Understand the function, effects and frequency of treatments; bandages, poultices, cold water / ice, cleaning agents 3:3:5 State the contents of an equine first aid kit 3:3:6 Identify signs of lameness in a horse at rest and in motion 3:3:7 Compile first aid records and reports for client, veterinarian, statutory and personal use
Parasitology 3:4:1 Discuss the life cycle, pathogenic mechanisms of equine parasites 3:4:2 Identify parasitic threats 3:4:3 Explain the influence of variable weather conditions on parasitic diseases 3:4:4 Understand drug control and drug resistance 3:4:5 Evaluate a faecal egg count 3:4:6 Implement a worm control programme Practical Demonstration: Faecal egg count
Conformation 3:5:1 Describe the physical characteristics of horses to include type, height, bone, age, colour, markings, sex 3:5:2 Appraise a horse's conformation including body and limbs 3:5:3 Understand weight distribution; symmetry, head, neck, body, limbs 3:5:4 Assess limb conformation and describe ideal conformation in the fore and hind limb and foot 3:5:5 Identify types of limb / foot conformation, gait abnormalities which may predispose to specific conditions 3:5:6 Discuss the terms straight shoulders, tied in elbow, calf knee, over at knee, short upright pasterns; broken back, broken forward, valgus, varus; toe in /toe out; base wide/ narrow; sickle/cow hocks; winging in /out, plaiting, Practical Demonstration: Assessing Conformation
Farriery 3:6:1 Discuss the importance of farriery and identify common tools used by the farrier 3:6:2 Demonstrate the correct method of holding a horse and assisting the farrier 3:6:3 Outline the daily maintenance of the shod or unshod horse 3:6:4 Describe common foot problems caused by environmental conditions 3:6:5 Explain basic foot care 3:6:6 Describe the internal and external structures of an equine foot 3:6:7 State the function of the equine foot and lower limb 3:6:8 Discuss growth plates 3:7:9 Understand the principles of corrective and remedial farriery Practical Demonstration: Assessing conformation

Assessment breakdown	%
Continuous Assessment	40.00%
End of Module Formal Examination	60.00%

Continuous Assessment				
Assessment type	Assessment description	Outcome addressed	% of total	Assessment date
Project	Project	1,4,5,6,7	40.00%	End of semester

No Project

No Practical

End of Module Formal Examination				
Assessment type	Assessment description	Outcome addressed	% of total	Assessment date
Formal Exam	Written Examination Approx. 25 questions in total	1,2,3,4,5,6,7	60.00%	End-of-Semester

Reassessment requirement	
Exam board Reassessment of this module will consist of a repeat examination. It is possible that there will also be a requirement to be reassessed in a coursework element.	

SETU Carlow Campus reserves the right to alter the nature and timing of assessments.