



Australian Government

Department of Education, Employment and Workplace Relations

ACMEQU401A Relate equine anatomical and physiological features to equine health care requirements

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This Unit of Competency covers the process of evaluating a range of ailments and diseases that could occur in horses and their impact on other body systems and the health of horses.

Application of the Unit

The Unit is applicable to the equine industry where it may be necessary to provide health care to ensure the well being and efficient physiological function of horses. In addition to legal and ethical responsibilities, all Units of Competency in the ACM10 Animal Care and Management Training Package have the requirement for animals to be handled gently and calmly. The individual is required to exhibit appropriate care for animals so that stress and discomfort is minimised.

Licensing/Regulatory Information

Licensing, legislative, regulatory or certification requirements may apply to this Unit. Therefore, it will be necessary to check with the relevant state or territory regulators for current licensing, legislative or regulatory requirements before undertaking this Unit.

Pre-Requisites

There are no pre-requisite Units for this competency standard.

Employability Skills Information

This Unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Identify, locate and describe systemic anatomical features of the horse	1.1 Anatomical features are used to describe the characteristics of horse structures to others 1.2 Anatomical features are used to describe the location of horse structures to others 1.3 Anatomical orientation is used to locate and explain the position of structures in horses to others
2 Identify and describe systemic and pathophysiologic systems of horses	2.1 Structure and function of cellular biology and its relationship to growth, injury and healing/repair are identified and described to others in relation to impact on general horse health 2.2 Structures and functions of the integumentary system are identified and described to others in relation to impact on general horse health 2.3 Structures and functions of musculo-skeletal system are identified and described to others in relation to impact on general horse health 2.4 Structures and functions of respiratory system are identified and described to others in relation to impact on general horse health 2.5 Structures and functions of cardiovascular system are identified and described to others in relation to impact on general horse health 2.6 Structures and functions of digestive system are identified and described to others in relation to impact on general horse health 2.7 Structures and functions of reproductive system are identified and described to others in relation to impact on general horse health 2.8 Structures and functions of nervous and endocrine systems are identified and described to others in relation to impact on general horse health 2.9 Structures and functions of the immune systems are identified and described to others in relation to impact on general horse health 2.10 Structures and functions of the hepatic system are identified and described to others in relation to impact on general horse health 2.11 Structures and functions of the urinary system are identified and described to others in relation to impact on general horse health
3 Evaluate the impact of disease, illness or injury on treatment	3.1 Temperature regulation in horses is related to overall health and well being 3.2 Horse behaviour is related to symptoms of disease, illness or injury

priorities

3.3 Horse **treatment** of disease, illness or injury is related to health care priorities

3.4 Treatment priority decisions are made based on animal welfare needs and the potential ongoing impact of ailments or disease

Required Skills and Knowledge

This section describes the skills and knowledge required for this Unit.

Required skills include:

Ability to:

- analyse and solve problems using available information and resources including recording information and prioritising daily tasks
- apply interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities
- communicate effectively with others, including questioning, active listening, asking for clarification and consulting with or seeking advice from other relevant persons
- consult clearly and precisely with other equine health care providers
- employ safe and environmentally responsible organisational systems and procedures when working with and handling horses
- follow sequenced written instructions; record accurately and legibly information collected; and select and apply procedures to a range of defined tasks
- identify when the horse's needs are beyond provider's current professional and personal scope
- interpret and respond appropriately to horse behaviour
- maintain the highest standards of hygiene and infection control at all times to reduce the risk of infection and cross-infection; considering zoonotic and exotic disease possibilities (biosecurity)
- prepare and maintain equine records using appropriate terminology
- provide information to owners or carers on equine health care
- read and follow required policies and procedures, including OHS, infection control and waste management
- refer owners or carers to relevant health care providers when required
- use safe manual handling techniques and/or equipment
- use safe, hygienic and environmentally friendly waste handling and disposal procedures.

Required knowledge includes:

Knowledge of:

- anatomical and physiological structures, features and functions
- anatomical directional terminology
- causes and consequences of horse ailments, infections and injuries
- contagious disease symptoms, prophylaxis and biosecurity protocols
- equine allied health practitioners' codes of conduct
- equine health therapies and treatments
- indicators of horse distress, illness and disease
- industry and anatomical terminology related to equine allied health care
- normal and abnormal characteristics of equine behaviour

- principles of animal welfare
- relevant legislation, regulations and codes of practice, including OHS, animal welfare and ethics, veterinary practice and waste disposal
- relevant state or territory legislation covering the supply, possession and use of restricted and controlled substances
- safe work practices
- workplace hygiene standards (biosecurity) including: disinfectants, cleaning agents and techniques, cleaning and appropriate disinfection or sterilisation of equipment, materials and personal protective equipment (PPE).

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this Unit	The evidence required to demonstrate competence in this Unit must be relevant to workplace operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this Unit. Assessors should ensure that candidates can: • describe and locate anatomical and physiological features of horses using veterinary terminology • explain the function and interaction of body systems • evaluate a range of ailments and diseases that could occur in horses and their impact on other body systems • identify horse behaviour characteristics that indicate distress or illness • make informed decisions on prioritising general classes of treatments provided by allied equine health care providers to maintain the health and well-being of horses. The skills and knowledge required to relate equine anatomical and physiological features to equine health care requirements must be transferable to a range of work environments and contexts and include the ability to deal with unplanned events.
Context of and specific resources for assessment	Assessment for this Unit is to be practical in nature and will be most appropriately assessed in an equine allied health workplace or in a situation that reproduces normal work conditions. There must be access to a range of horses and anatomical models and the relevant equipment and resources to enable one to demonstrate competence.
Method of assessment	To ensure consistency in performance, competency should be demonstrated, to industry standards, on more than two occasions over a period of time in order to cover a variety of circumstances, cases and

	responsibilities and over a number of assessment activities. The assessment strategy must include assessment of competency in a work environment. Suggested strategies for this Unit are: • written and oral assessment of candidate's required knowledge • observed, documented and first-hand testimonial evidence of candidate's application of practical tasks • simulation exercises that reproduce normal work conditions • case studies • third-party evidence • workplace documentation. This Unit may be assessed in a holistic way with other Units of Competency relevant to the industry sector, workplace and job role.
Guidance information for assessment	Assessment methods should reflect workplace demands (e.g. literacy and numeracy demands) and the needs of particular target groups (e.g. people with disabilities, Aboriginal and Torres Strait Islander people, women, people with a language background other than English, youth and people from low socio-economic backgrounds).

Range Statement

The range statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Anatomical features may include:	• cell • systems: • cardiovascular • digestive • hepatic • integumentary • lymphatic • musculo-skeletal • nervous and endocrine • reproductive • respiratory • tooth structure • urinary.
Others may include:	• veterinarians • colleagues • handlers or attendants • other equine allied health care providers • owners or carers.
Cellular biology may include:	• basic cell anatomically and physiologically • cell division • cell metabolism • deoxyribonucleic acid (DNA).
Components of the integumentary system may include:	• skin • mucus membranes • hair • hooves • keratin • fibrous tissue ('scar')
Components of the musculo-skeletal system may include:	• bones of the body • bones of the head, jaw and neck • bone structure • joints

	• ligaments • tendons • muscles of the head and neck • major muscles • muscle tissue • teeth and tooth structure; periodontium.
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Components of the <i>respiratory system</i> may include:	• nostrils (nares) • pharynx • larynx • trachea and bronchi • lungs • diaphragm • rib cage and intercostal muscles
Components of the <i>cardiovascular system</i> may include:	• blood vessels, covering all five types of vessels including: • arteries • veins • blood cells • blood circulation • lymphatic circulation • heart.
Components of the <i>digestive system</i> may include:	• lips • oral cavity (mouth) • teeth • tongue • pharynx • epiglottis • oesophagus • spleen • liver • stomach • duodenum • small intestine • small colon • large colon • caecum • rectum • anus • smooth muscle function and peristalsis • blood and lymphatic circulation.
Components of the <i>reproductive system</i> may include:	• endocrine glands • male and female genital organs • oestrous cycle • pregnancy and foaling.
Components of the <i>nervous and endocrine systems</i> may include:	• endocrine glands • hypothalamus and pituitary axis • hormonal influences on oestrous cycle, pregnancy

	and foaling • central and peripheral nerve cells • oestrous cycle • pregnancy and foaling • sensation including noxious response • spinal nerves • sympathetic and parasympathetic nervous systems • cranial nerves.
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Components of the <i>immune systems</i> may include:	• inflammation and immune responses and wound healing • lymph nodes • lymphatic vessels/circulation • spleen • thymus.
Components of the <i>hepatic system</i> may include:	• digestion of fats and role of bile • liver.
Components of the <i>urinary system</i> may include:	• bladder • kidneys • urinary tract (ureters, urethra)
<i>Horse behaviour</i> problems may include:	• bed eating • bolting food • box walking • bucking • crib biting • jibbing • kicking or biting staff or other horses • pushing or barging • rearing • reluctance to eat • rug chewing • weaving • wind sucking.
<i>Disease, illness or injury</i> may include:	• skeletal and muscular systems: • bog spavin • bone chips • bone spavin • bowed tendon • degenerative joint disease (DJD) • muscle myopathies • muscle strain • navicular disease • sesamoiditis • shin soreness • splints • stifle joint lameness • suspensory ligament injury • tendonitis • windgalls

	• respiratory system: • acute respiratory syndrome - Hendra Virus • air passage inflammation • bleeding • equine herpes virus • equine influenza • heaves • pneumonia • roaring • strangles • circulatory system: • cardiac abnormalities • epistaxis • myocardial disease • digestive system: • botulism • colic • quidding • choke • 'colitis x' • dysphagia • enteritis • hepatitis.
Treatment may include:	• acupuncture • bandaging techniques • chiropractic • dentistry • electromagnetic • exercise, for example walking or swimming • hydrotherapy • cold and heat • immobilisation • laser • magnetic • massage • pharmaceutical • physiotherapy • rest.

Unit Sector(s)

Equine