



Australian Government

ACMEQU415 Relate musculoskeletal system to horse conformation and movement

Release: 1

ACMEQU415 Relate musculoskeletal system to horse conformation and movement

Modification History

Release	Comments
Release 1	This version released with ACM Animal Care and Management Training Package Version 5.0.

Application

This unit of competency describes the skills and knowledge required to assess and evaluate the physical condition, conformation and movement of horses and/or other equines. It covers the implications of conformation on performance, development of corrective measures and recommendations for horses in relation to their intended purpose.

The unit applies to individuals who have experience working with a range of horses in senior roles within a horse establishment or in a specialist technical equine field. They work autonomously, analyse information, recommend solutions to routine and at times complex problems, and convey information to others.

Commonwealth and state/territory health and safety and animal welfare legislation, regulations and codes of practice relevant to interacting with horses apply to workers in this industry. Requirements vary between industry sectors and jurisdictions.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Equine (EQU)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine structural	1.1 Establish a safe area to observe and examine horses, incorporating

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
features of horse musculoskeletal system	risk assessment and control measures 1.2 Observe and assess horse skeletal structure, posture and proportions 1.3 Assess size, shape and key features of the head, neck, back and hind quarters 1.4 Examine structural features of fore and hind legs, and hooves 1.5 Identify desirable and undesirable conformation characteristics 1.6 Compare horse conformation to features associated with various work, sport or recreational activities
2. Determine horse muscling and relationship to movement and biomechanics	2.1 Observe horse from different angles and evaluate muscling at key points 2.2 Identify location of joints, muscles, tendons and ligaments of significance to movement 2.3 Relate basic biomechanics to horse balance and movement when static and in motion
3. Assess horse conformation and movement	3.1 Determine the impact of age on horse growth rates and stages of development 3.2 Assess horse conformation and identify structural differences in physical appearance and muscling between conditioned and unconditioned horses 3.3 Observe horse movement in different gaits, and identify any irregularities with and without a saddle and/or associated gear 3.4 Identify effects of overtraining, exercise and injury on musculoskeletal system 3.5 Assess suitability of conformation and anatomy specific to the choice of gear and equipment 3.6 Identify where injury or inhibited movement is attributed to gear and equipment 3.7 Identify issues where referral to an equine service provider is recommended
4. Determine horse suitability for intended purpose or activity	4.1 Identify intended purpose or activity planned for horse, and assess suitability based on evaluation of conformation, movement and physical condition 4.2 Make recommendations to optimise horse condition and

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	movement for intended purpose or activity 4.3 Convey information and recommendations relating to horse conformation, movement and physical condition to relevant personnel

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Interpret and analyse anatomical diagrams and textual information from a variety of sources
Writing	- Record observations using print-based and/or digital formats - Use objective, industry standard terminology to describe horse conformation and movement
Oral communication	- Explain complex anatomical and scientific concepts using language suitable to audience to convey information and requirements - Use listening and questioning techniques to confirm understanding

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ACMEQU415 Relate musculoskeletal system to horse conformation and movement	ACMEQU403 Relate musculoskeletal structure to horse movement	Redesigned unit merging <i>ACMEQU403 Relate musculoskeletal structure to horse movement</i> , and <i>ACMPHR503 Evaluate performance horse conformation</i>	Not equivalent
ACMEQU415 Relate musculoskeletal system to horse	ACMPHR503 Evaluate performance	Redesigned unit merging <i>ACMEQU403 Relate musculoskeletal structure</i>	Not equivalent

conformation and movement	horse conformation	<i>to horse movement, and ACMPHR503 Evaluate performance horse conformation</i>	
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Links

Companion Volumes, including Implementation Guides, are available at VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b75f4b23-54c9-4cc9-a5db-d3502d154103>

Assessment Requirements for ACMEQU415 Relate musculoskeletal system to horse conformation and movement

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has:

- observed and examined the physical condition, conformation and movement of at least four different horses, including:
 - at least one foal or young horse under two years of age
 - at least one horse requiring recommendations for treatment or referral to an equine service provider
 - at least one horse requiring recommendations for preparation for intended purpose
- handled and interacted with each horse safely using low stress techniques during examinations and observations
- provided a report on each horse, covering:
 - desirable and undesirable conformational features
 - analysis of movement and gait
 - relationship of physical features to intended purpose
 - recommendations for improved performance or referral to an equine service provider, if appropriate.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- horse musculoskeletal system, including:
 - bones, joints and bony landmarks
 - key function and features of the equine fore and hind limbs, including distal limb and hoof capsule
 - key muscles and their actions, origin and insertion points
 - location of deep and superficial muscles

- location of tendons, ligaments and soft tissues
- function and anatomy of fascial sheaths
- key anatomical and physiological terminology used to describe the equine musculoskeletal system
- changes or impacts on horse musculoskeletal system, including:
 - age and growth
 - exercise, training and performance
 - ailments and injury
- horse conformation, including:
 - techniques for analysing conformation
 - desirable and undesirable conformation characteristics
 - horse breeds, conformation characteristics and breed standards of excellence
 - performance horse sports requirements relevant to conformation
 - industry standard conformation terminology
- fundamentals of biomechanics and key concepts relevant to horse movement, including:
 - movement of body
 - balance
 - speed and acceleration
- horse gaits, including:
 - steps and strides
 - natural gaits – walk, trot, canter/lope, gallop and back
 - ambling or artificial gaits generally requiring training
 - recognition of asymmetry, uneven gait
- circumstances that require referral to relevant equine service provider, including:
 - veterinarian
 - farrier
 - equine massage therapist or other body worker
 - gear fitter and checker
 - equine dental technician
- workplace health and safety practices, including:
 - risk assessment and control measures
 - safe handling and interactions with horses
 - use of personal protective equipment (PPE)
 - issues related to controlled and uncontrolled environments
- key requirements of animal welfare standards, policies and procedures relevant to the safe, humane and ethical care of horses, including an overview of concept of social licence to operate.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - an equine workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - various live horses as specified in the performance evidence, assessed as suitable for the experience and skill of the individual
 - appropriate gear for horse and PPE for handler.

The *Companion Volume: User Guide: Safety in Equine Training* provides advice and sample templates to assist assessors with the risk assessments that should be undertaken to help ensure the safety of all involved in the assessment.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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