



Australian Government

SISOEQO418 Apply anatomy and physiology to equine performance

Release 1

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Modification History

The release details of this endorsed unit are in the table below. The latest information is at the top.

Release	Comments
1	New unit.

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to apply an understanding of the basic anatomical systems of horses and their conformation to their soundness and implications for performance.

Application of the Unit

This unit applies to those working in a horse establishment or organisation. It may include those working in private horse riding companies and outdoor education programs. It will equip them to understand the impacts of conformation on horse soundness and will assist to make appropriate choices when they acquire horses for their program.

The unit covers a fundamental knowledge of horse anatomy and physiology to assist those responsible for horses in sport and recreational environments to identify equine soundness and performance issues.

Licensing/Regulatory Information

No licensing, regulatory or certification requirements apply to this unit at the time of endorsement.

Pre-Requisites

Nil.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements and Performance Criteria

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.

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| <p>1. Determine the impacts of conformation on horse soundness and performance.</p> <p>2. Assess horse for suitability for use in different programs</p> | <p>1.1. Identify the equine requirements for specific equine programs.</p> <p>1.2. Identify functions of the <i>internal systems</i> of a horse.</p> <p>1.3. Identify the common points of a horse to enable clear description of any performance-related problems.</p> <p>1.4. Explain the connection between conformation and performance of a horse.</p> <p>1.5. Use <i>techniques</i> to determine <i>conformation faults</i> that result in <i>unsoundness</i> and impact on the performance of a horse.</p> <p>2.1. Assess the health of individual horses in relation to anatomical systems</p> <p>2.2. Assess the suitability of individual horses for different uses in relation to their conformation</p> <p>2.3. Report findings to relevant parties.</p> |
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Required Skills and Knowledge

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

Required skills

- communication skills to:
 - report information on the conformation, anatomy and physiology and soundness of individual horses
- literacy to collect and analyse information gathered about individual horses
- problem-solving skills to:
 - assess the health of individual horses in relation to anatomical systems
 - assess the suitability of individual horses for different uses in relation to their conformation
 - apply knowledge of the impacts of conformation on horse performance to assist in solving problems related to individual animals
 - horse handling, testing and restraint techniques which ensure that the assessment of horses is carried out safely.

Required knowledge

- anatomy and physiology of horses to enable the identification of health issues and the appropriate analysis of problems, including:
 - respiratory system
 - alveolus
 - diaphragm
 - larynx
 - lungs
 - nostril
 - pharynx
 - trachea
 - skeletal system:
 - bones
 - cartilage
 - joints
 - ligaments
 - muscles
 - tendons
 - circulatory system:
 - arteries
 - blood cells
 - heart
 - lungs

- veins
- capillaries
- digestive system
 - caecum
 - diaphragm
 - intestines
 - kidneys
 - mouth
 - oesophagus
 - pharynx
 - stomach
 - teeth
- reproductive system:
 - endocrine glands
 - male and female genital organs
 - oestrous cycle
 - pregnancy and foaling
- nervous system:
 - brain
 - sensory and motor nerves
 - spinal cord
- conformation faults and the implications of this information on horse health, movement and soundness, to enable appropriate understanding of individual horse potential
- examination techniques to enable the accurate assessment of horse health, soundness and movement
- points of a horse to enable clear descriptions of problems
- work health and safety/occupational health and safety legislation relating to:
 - manual handling systems
 - adequate training for the actions to be carried out to enable safe and effective handling of horses
- organisational policies and procedures for safe and effective handling of horses.

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

Evidence of the ability to:

- apply knowledge of internal systems of a horse to determine soundness of a horse
- use techniques to analyse and report on conformation faults and physiological capacities of a variety of horses and link these to their suitability for use in different equine programs

Context of and specific resources for assessment

Assessment must ensure access to:

- a private or commercial establishment with a variety of tack to meet the needs of different horses, and arenas or yards for riding and safe handling of horses.
- multiple horses with a variety of conformation faults.

Method of assessment

A range of assessment methods should be used to assess skills and knowledge. The following examples are appropriate for this unit:

- oral and written questioning to identify conformation faults in a variety of horses and to describe how these relate to the soundness and performance of each horse
- case studies requiring the analysis of performance problems of particular horses and the links to conformation faults
- oral or written questioning to determine knowledge of the major internal systems of horses and their relationship to horse health and performance
- review of portfolios of evidence and third-party workplace reports of on-the-job performance by the individual.

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

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.

Internal systems must include:

- respiratory system.
- skeletal system
- circulatory system
- digestive system
- reproductive system
- nervous system

Techniques may include:

- flexion test
- trotting up the horse
- lunging
- using a plumb line to check straightness of limbs
- measuring the cannon bone, heart girth
- checking teeth alignment.

Conformation faults may include:

- base wide
- base narrow
- calf knee
- club foot
- cow hocks
- ewe neck
- offset cannons
- overshot and undershot mouth
- roach back
- sickle hocks
- sway back
- upright pastern
- upright shoulder.

Unsoundness may include:

- chronic lameness
- deformities
- weaknesses
- poor structures.

Unit Sector(s)

Outdoor Recreation.

Competency Field

Equestrian Activities.