Title	**Demonstrate knowledge of basic anatomy to the performance of a complex sport skill**		
Level	**2**	**Credits**	**3**

Purpose	People credited with this unit standard are able to demonstrate knowledge of: the structure and function of the skeletal system, synovial joints, and muscular system in the human body; and how skeletal muscles work together to produce movement at the major joints involved in the performance of a complex sports skill.

Classification	Recreation and Sport > Recreation and Sport - Core Skills

Available grade	Achieved

Guidance Information

1 All learning and assessment within this unit standard must be carried out in accordance with the following:
- relevant legislation including Health and Safety at Work Act 2015, Children's Act 2014, and any subsequent amendments;
- organisational policies and procedures including Emergency Action Plans (EAPs), Standard Operating Procedures (SOPs) or Normal Operating Procedures (NOPs), and the use of personal protective equipment (PPE).

2 Definitions

A *complex sports skill* is one that is made up of a number of different actions.
Main muscles or muscle groups referred to in this unit standard may include, but are not limited to – trapezius, latissimus dorsi, deltoid, pectorals, biceps, triceps, quadriceps, hamstrings, gluteals, abdominals, erector spinae, gastrocnemus, soleus, and tibialis anterior.
Major joints include the shoulder, elbow, wrist, hip, knee, and ankle.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the structure and function of the skeletal system in the human body.

Performance criteria

1.1 Describe the main functions of the skeleton.

Range functions include – shape, protection, storage of minerals, production of blood cells, muscle attachment, movement.

1.2 Identify the classification of bones on a skeleton as axial or appendicular.

Range skull, scapula, clavicle, vertebrae, ribs, humerus, radius, ulna, carpals, metacarpals, pelvis, femur, patella, tibia, fibula, tarsals, metatarsals.

1.3 Describe the structure and function of different types of bones.

Range bones include – long, short, flat, irregular bones.

1.4 Describe the structure and function of different types of joints.

Range joints include – fused, cartilaginous, synovial.

1.5 Describe anatomical reference terms as they relate to position and movement.

Range anatomical positions include – superior, inferior, anterior, posterior, proximal, distal, medial, lateral;
anatomical movements include – flexion, extension, abduction, adduction, rotation, circumduction, pronation, supination, inversion, eversion, plantar flexion, dorsi flexion.

Outcome 2

Demonstrate knowledge of the structure and function of synovial joints in the human body.

Performance criteria

2.1 Describe the structure and function of synovial joints in relation to their key components.

Range structure of the synovial joint includes but is not limited to – ligaments, membrane, cartilage, synovial fluid.

2.2 Identify synovial joints according to the shape of their bones and describe the type of movement they allow.

Range synovial joints include – ball and socket, hinge, pivot, ellipsoid, gliding or plane, saddle.

2.3 Identify bones associated with the major joints in the human body.

Range bones include – humerus, scapula, clavicle, radius, ulna, carpals, pelvis, femur, patella, tibia, fibula, tarsals.

Outcome 3

Demonstrate knowledge of the structure and function of the muscular system in the human body.

Performance criteria

3.1 Describe the structure and function of skeletal muscle.

Range structure includes but is not limited to – location, muscle attachments, muscle fibres, tendons;
function includes but is not limited to – voluntary, types of contractions, agonist/antagonist pairs.

3.2 Identify the main skeletal muscles or muscle groups and use anatomical terms to describe the movements they create.

Outcome 4

Demonstrate knowledge of how skeletal muscles work together to produce movement at the major joints involved in the performance of a complex sports skill.

Performance criteria

4.1 Use anatomical terms to describe the key movements at each of the major joints involved in a complex sports skill.

Range key movements may include but are not limited to – flexion, extension, abduction, adduction, rotation, circumduction, pronation, supination, inversion, eversion, plantar flexion, dorsi flexion.

4.2 Identify the actions of the main muscles or muscle groups that contribute to the movements in anatomical terms.

Range actions include – agonist and antagonist pairs.

Planned review date	31 December 2026

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	20 November 2006	31 December 2023
Rollover and Revision	2	20 May 2011	31 December 2023
Review	3	16 December 2021	N/A

Consent and Moderation Requirements (CMR) reference	0099

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Comments on this unit standard

Please contact Toi Mai Workforce Development Council qualifications@toimai.nz if you wish to suggest changes to the content of this unit standard.