

<b>Title</b>	<b>Describe the human nervous system</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	People credited with this standard can describe: <ul style="list-style-type: none"> <li>the structure and function of the human nervous system, nervous tissue and the central and peripheral nervous system; and</li> <li>the functions of the sympathetic and parasympathetic branches of the autonomic nervous system.</li> </ul>
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<b>Classification</b>	Health, Disability, and Aged Support > Core Health
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<b>Available grade</b>	Achieved
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### Guidance Information

- Assessment note**  
 Evidence generated for assessment against this standard must reflect descriptions and principles in, *Essentials of human anatomy and physiology*, or another current medical text that describes human anatomy.
- Reference**  
 Marieb, E.N. (2017). *Essentials of human anatomy and physiology, Global Edition* (12th ed.). Harlow, United Kingdom: Pearson Education Limited.

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### Outcomes and performance criteria

#### Outcome 1

Describe the structure and function of the human nervous system.

#### Performance criteria

- The structural classifications of the human nervous system are described.
 

Range	central nervous system, peripheral nervous system, sensory, motor, somatic, sense organs, autonomic, sympathetic, parasympathetic.
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- The function of the human nervous system is described.
 

Range	sensory input, integration, motor output.
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**Outcome 2**

Describe the structure and function of nervous tissue.

**Performance criteria**

2.1 The location and functions of neuron components are described.

Range cell body/soma, axons, dendrites, myelin sheath.

2.2 The location and functions of neuroglia are described.

Range Schwann cells, oligodendrocytes, astrocytes, microglia, ependymal cells.

2.3 The transmission of a nerve impulse from neuron to neuron, muscle, and gland is described.

Range irritability or excitability, conductivity, neurotransmitters, chemical synapse.

**Outcome 3**

Describe the structure and function of the central and peripheral nervous system.

**Performance criteria**

3.1 The structure, location, and function of components of the central nervous system are described.

Range brain, spinal cord, meninges.

3.2 The location and function of components of the brain are described.

Range cerebrum – functional areas, thalamus, hypothalamus;  
brain stem – midbrain, pons varolii, medulla oblongata, vital centres;  
cerebellum.

3.3 The production, circulation, and function of cerebrospinal fluid are described.

3.4 The structure and function of the blood-brain barrier are described.

Range brain capillary characteristics;  
four substances that cross the blood-brain barrier;  
two substances that do not cross the blood-brain barrier.

3.5 The locations of spinal cord components are identified.

Range coverings, central canal, grey and white matter, spinal nerves;  
cervical spine, thoracic spine, lumbar spine, sacral nerves.

3.6 The function of the spinal cord is described.

Range two-way pathway, integration, reflex centre.

3.7 The structure, location, and function of components of the peripheral nervous system are described.

Range sensory (afferent), motor (efferent).

#### Outcome 4

Describe the functions of the sympathetic and parasympathetic branches of the autonomic nervous system.

#### Performance criteria

4.1 The function of the sympathetic nervous system is described.

4.2 The function of the parasympathetic nervous system is described.

4.3 The role of the hypothalamus in integrating the sympathetic and parasympathetic functions of the autonomic nervous system is described.

<b>Planned review date</b>	31 December 2026
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#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 October 1998	31 December 2012
Review	2	26 May 2004	31 December 2012
Review	3	20 March 2008	31 December 2012
Review	4	20 September 2012	31 December 2023
Rollover and Revision	5	26 September 2019	31 December 2023
Review	6	30 September 2021	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0024
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

#### Comments on this unit standard

Please contact Careerforce [info@careerforce.org.nz](mailto:info@careerforce.org.nz) if you wish to suggest changes to the content of this unit standard.