

DEMONSTRATE THE KNOWLEDGE OF MEDICAL PHYSIOLOGY
UNIT CODE: MED/OS/PM/CC/02/6/A

UNIT DESCRIPTION

This unit specifies the competencies required to demonstrate the knowledge of medical physiology. It involves demonstrating the knowledge of physiologic principles, demonstrating the knowledge of human body systems, integumentary system.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
<p>These describe the key outcomes which make up workplace function.</p>	<p>These are assessable statements which specify the required level of performance for each of the elements.</p> <p><i>Bold and italicized terms are elaborated in the Range</i></p>
<p>1. Demonstrate the knowledge of physiologic principles</p>	<p>1.1 The structure of the normal cell analyzed as per the cellular inclusions</p> <p>1.2 Functions of <i>cellular organelles</i> identified as per the structure</p> <p>1.3 Types of cell division described as per the cell type</p> <p>1.4 Types of mammalian cells identified as per the cell type</p> <p>1.5 The organization, size and composition of body fluids identified as per the site, composition and organization of the fluid.</p> <p>1.6 <i>Units of measurement</i> of the physiochemical constituent in cells identified as per the concentration</p> <p>1.7 <i>Forces producing movement</i> of substances between body fluid compartments identified as per the cell type</p> <p>1.8 Maintenance and variations in membrane potentials analyzed as per the cell type</p> <p>1.9 The buffering system of the body outlined as per the cell type</p>
<p>2. Demonstrate the knowledge of the human body systems</p>	<p>2.1 The <i>components of the human body systems</i> are identified as per the workplace procedures</p> <p>2.2 Relevant functions of the body s systems identified as per the workplace procedures</p> <p>2.3 Relevant principles of the body s systems to performance of therapy treatment applied as per the workplace procedures</p>

3. Demonstrate the knowledge of the integumentary system	3.1 The <i>components of the integumentary systems</i> are identified as per the workplace procedures 3.2 Functions of the integumentary systems identified as per the components 3.3 Principles of the integumentary applied as per the workplace procedures
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RANGE

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

Variables	Range May include but not limited to:
1. Cellular organelles	<ul style="list-style-type: none"> • Mitochondria • Endoplasmic reticulum • Nuclei • Cell membrane • Cytoplasm
2. Units of measurement	<ul style="list-style-type: none"> • Moles • Equivalents • Osmoles
3. Forces producing movement	<ul style="list-style-type: none"> • Diffusion • Donnan effect • Solvent drag • Osmosis • Filtration • Active transport • Exocytosis • Endocytosis
4. Components of the human body systems	<ul style="list-style-type: none"> • Cardiovascular system • Respiratory system • Renal system • Musculoskeletal system • Reproductive system • Skin • Gastro intestinal • Central nervous system

5. Components of the integumentary systems	<ul style="list-style-type: none"> • Skin • Hair • Nails • Exocrine glands
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REQUIRED SKILLS AND KNOWLEDGE

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

Required Skills

The individual needs to demonstrate the following skills:

- Organizing skills
- Analytical skills
- Negotiation skills
- Interpersonal skills
- Communication skills
- Evaluation skills
- Problem solving
- Critical thinking

Required Knowledge

The individual needs to demonstrate knowledge of:

- The role of physiology in the broad field of physical and biomedical sciences
- Normal functions of the body
- Pathological and physiological states

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

1. Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Analyzed the structure of the normal cell as per the cellular inclusions 1.2 Identified functions of cellular organelles as per the structure 1.3 Described types of cell division as per the cell type 1.4 Identified types of mammalian cells as per the cell type 1.5 Identified the organization, size and composition of body
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	<p>fluids as per the site, composition and organization of the fluid.</p> <p>1.6 Identified units of measurement of the physiochemical constituent in cells as per the concentration</p> <p>1.7 Identified forces producing movement of substances between body fluid compartments as per the cell type</p> <p>1.8 Analyzed maintenance and variations in membrane potentials as per the cell type</p> <p>1.9 Outlined the buffering system of the body as per the cell type</p> <p>1.10 Identified the components of the human body systems as per the workplace procedures</p> <p>1.11 Identified relevant functions of the body s systems as per the workplace procedures</p> <p>1.12 Applied relevant principles of the body s systems to performance of therapy treatment as per the workplace procedures</p> <p>1.13 Identified the components of the integumentary systems as per the workplace procedures</p> <p>1.14 Identified functions of the integumentary systems as per the components</p> <p>1.15 Applied principles of the integumentary as per the workplace procedures</p>
2. Resource Implications	<p>The following resources must be provided:</p> <p>2.1 Functional Pharmaceutical technology system</p>
3. Methods of Assessment	<p>Competency may be assessed through:</p> <p>3.1 Written tests</p> <p>3.2 Third party reports</p> <p>3.3 Oral questioning</p> <p>3.4 Interview</p> <p>3.5 Observation</p>
4. Context of Assessment	<p>Assessment could be conducted:</p> <ul style="list-style-type: none"> • On-the-job • Off-the-job • During industrial attachment
5. Guidance information for assessment	<p>Holistic assessment with related units in the sector</p>