

**REPUBLIC OF KENYA** 

# NATIONAL OCCUPATIONAL STANDARDS



LEVEL 6



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#### FOREWORD

The provision of quality education and training is fundamental to the Government's overall strategy for social economic development. Quality education and training will contribute to achievement of Kenya's development blueprint, Vision 2030 and sustainable development goals.

Reforms in the education sector are necessary for the achievement of Kenya Vision 2030 and meeting the provisions of the Constitution of Kenya 2010. The education sector had to be aligned to the Constitution of Kenya 2010 and this resulted to the formulation of the Policy Framework for Reforming Education and Training (Sessional Paper No. 4 of 2016). A key feature of this policy is the radical change in the design and delivery of the TVET training. This policy document requires that training in TVET be competency based, curriculum development be industry led, certification be based on demonstration of competence and mode of delivery allows for multiple entry and exit in TVET programmes.

These reforms demand that Industry takes a leading role in curriculum development to ensure the curriculum addresses its competence needs. It is against this background that these Occupational Standards were developed for developing a competency-based curriculum for nutrition dietetic. These Occupational Standards will also be the bases for assessment of an individual for competence certification.

It is my conviction that these Occupational Standards will play a great role towards development of competent human resource for the nutrition dietetic sector's growth and development.

# PRINCIPAL SECRETARY, VOCATIONAL AND TECHNICAL TRAINING MINISTRY OF EDUCATION

## PREFACE

Kenya Vision 2030 aims to transform the country into a newly industrializing, "middleincome country providing a high-quality life to all its citizens by the year 2030". Kenya intends to create a globally competitive and adaptive human resource base to meet the requirements of a rapidly industrializing economy through life-long education and training. TVET has a responsibility of facilitating the process of inculcating knowledge, skills and attitudes necessary for catapulting the nation to a globally competitive country, hence the paradigm shift to embrace Competency Based Education and Training (CBET).

The Technical and Vocational Education and Training Act No. 29 of 2013 and Sessional Paper No. 4 of 2016 on Reforming Education and Training in Kenya, emphasized the need to reform curriculum development, assessment and certification. This called for a shift to CBET to address the mismatch between skills acquired through training and skills needed by industry as well as increase the global competitiveness of Kenyan labor force.

The TVET Curriculum Development, Assessment and Certification Council (TVET CDACC), in conjunction with nutrition dietetic Sector Skills Advisory Committee (SSAC) have developed these Occupational Standards for nutrition dietetic. These standards will be the bases for development of competency-based curriculum for nutrition dietetic

The occupational standards are designed and organized with clear performance criteria for each element of a unit of competency. These standards also outline the required knowledge and skills as well as evidence guide.

I am grateful to the Council Members, Council Secretariat, nutrition dietetic SSAC, expert workers and all those who participated in the development of these Occupational Standards.

Prof. CHARLES M. M. ONDIEKI, PhD, FIET (K), Con. EngTech. CHAIRMAN, TVET CDACC

## ACKNOWLEDGMENT

These Occupational Standards were developed through combined effort of various stakeholders from private and public organizations. I am thankful to the management of these organizations for allowing their staff to participate in this course. I wish to acknowledge the invaluable contribution of industry players who provided inputs towards the development of these Standards.

I thank TVET Curriculum Development, Assessment and Certification Council (TVET CDACC) for providing guidance on the development of these Standards. My gratitude goes to nutrition dietetic Sector Skills Advisory Committee (SSAC) members for their contribution to the development of these Standards. I thank all the individuals and organizations who participated in the validation of these Standards.

My gratitude also goes to the Ministry of Industrialization which enabled the development of these Standards through the industry experts.

I acknowledge all other institutions which in one way or another contributed to the development of these Standards.

# CHAIRMAN NUTRITION DIETETIC SECTOR SKILLS ADVISORY COMMITTEE

	ACRONYMS
CDACC	: Curriculum Development Assessment and Certification Council
BC	: Basic Competency
CC	: Core Competency
СО	: Common Units
OSHA	: Occupation Safety and Health Act
PPE	: Personal Protective Equipment
SSAC	: Sector Skills Advisory Committee
TVET	: Technical and Vocational Education and Training
SOP	: Standard operating procedures
NUD	: Nutrition and Dietetics
MED	: Medical
	: Medical

## **OVERVIEW**

The nutritional dietetic level six qualification consist of competencies that a person must achieve to examine client nutritional status, diagnose client nutritional requirement, develop nutrition care plan, plan and manage meals, manage maternal and child nutrition, apply nutrition in emergency, conduct nutrition education and counselling, provide diet therapy, apply principles of human nutrition and conduct nutrition assessment and surveillance

## **Basic Units of competency**

Unit of Learning Code	Unit of Learning Title
MED/OS/NUD/ BC/01/6/A	Demonstrate Communication skills
MED/ OS /NUD/ BC/02/6/A	Demonstrate Numeracy skills
MED/ OS /NUD/ BC/03/6/A	Demonstrate Digital literacy
MED/CU/NUD/ BC/04/6/A	Demonstrate Entrepreneurial skills
MED/ OS /NUD/ BC/05/6/A	Demonstrate Employability skills
MED/ OS /NUD/ BC/06/6/A	Demonstrate Environmental literacy
MED/ OS /NUD/BC/07/6/A	Demonstrate Occupational safety and health practices

# **Common units of learning**

Unit of Learning Code	Unit of Learning Title
MED/OS/NUD/CC/01/6/A	Demonstrate the Knowledge of Human anatomy
MED/ OS /NUD/CC/02/6/A	Demonstrate the Knowledge of Medical
	physiology
MED/ OS /NUD/CC/03/6/A	Demonstrate the Knowledge of Microbiology
MED/CU/NUD/CC/04/6/A	Food processing, safety and hygiene
MED/ OS /NUD/CC/05/6/A	Apply Nutrition biochemistry
MED/ OS /NUD/CC/06/6/A	Conduct Research methods and statistics

## Core units of learning

Unit of Learning Code	Unit of Learning Title
MED/ OS /NUD/CR/01/6/A	Apply Nutrition in emergency
MED/ OS /NUD/CR/02/6/A	Manage Nutrition in life cycle
MED/ OS /NUD/CR/03/6/A	Apply Principles of human nutrition
MED/ OS /NUD/CR/04/6/A	Conduct Nutrition care process
MED/ OS /NUD/CR/05/6/A	Plan and manage meals
MED/ OS /NUD/CR/06/6/A	Manage Maternal and child nutrition
MED/CU/NUD/CR/07/6/A	Conduct Nutrition education and
	counselling
MED/ OS /NUD/CR/08/6/A	Provide Diet therapy I
MED/ OS /NUD/CR/09/6/A	Provide Diet therapy II
MED/ OS /NUD/CR/10/6/A	Perform Dietetics operations
MED/ OS /NUD/CR/11/6/A	Apply Dietetics principles
MED/ OS /NUD/CR/12/6/A	Conduct Nutrition assessment and
	surveillance

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# BASIC UNITS OF COMPETENCY

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## DEMONSTRATE COMMUNICATION SKILLS

#### UNIT CODE: MED/OS/NUD/BC/01/6/A

#### **UNIT DESCRIPTION**

This unit covers the competencies required to demonstrate communication skills. It involves meeting communication needs of clients and colleagues, developing communication strategies, establishing and maintaining communication pathways, conducting interviews, facilitating group discussion and representing the organization.

ELEMENT	PERFORMANCE CRITERIA
These describe the	These are assessable statements which specify the required level
key outcomes	of performance for each of the elements.
which make up	Bold and italicized terms are elaborated in the Range
workplace	
function	
1. Meet	1.1 Specific communication needs of clients and colleagues are
communication	identified and met based on workplace requirements
needs of clients	1.2 Different communication approaches are identified and
and colleagues	applied according to clients' needs
	1.3 Conflict is identified and addressed as per the standards of the
	organization
2. Develop	2.1 Strategies for effective internal and external dissemination of
communication	information are developed as per organization's requirements
strategies	2.2 Special communication needs are considered in developing
	strategies according workplace procedures
	2.3 Communication strategies are analyzed, evaluated and
	revised based the workplace needs
3. Establish and	3.1 Pathways of communication are established as per
maintain	organization policy
communication	3.2 Pathways are maintained and reviewed according to
pathways	organization procedures
4. Promote use of	4.1 Information is provided to all areas of the organization as per
communication	strategy requirements
strategies	4.2 Effective communication techniques are articulated and
	modeled according work requirements
	4.3 Personnel are given guidance about adapting communication
	strategies as per organization procedures

## ELEMENTS AND PERFORMANCE CRITERIA

5. Conduct	5.1 A range of appropriate communication strategies are
interview	employed in <i>interview situations</i> based on the workplace
	requirements
	5.2 Records of interviews are made and maintained in accordance
	with organizational procedures
	5.3 Effective questioning, listening and nonverbal communication
	techniques are used as per needs
6. Facilitate	6.1 Mechanisms to enhance <i>effective group interaction</i> are
group	identified and implemented according to workplace
discussion	requirements
	6.2 Strategies to encourage group participation are identified and
	used as per organizations' procedures
	6.3 Meeting's objectives and agenda are set and followed based
	on workplace requirements
	6.4 Relevant information is provided and feedback obtained
	according to set protocols
	6.5 Evaluation of group communication strategies is undertaken
	in accordance with workplace guidelines
	6.6 Specific communication needs of individuals are identified
	and addressed as per individual needs
7. Represent the	5.1 7Relevant presentation are researched and presented based on
organization	internal or external communication forums requirements
	5.2 Presentation is delivered in a clear and sequential manner as
	per the predetermined time
	5.3 Presentation is made as per appropriate media
	5.4 Difference views are respected based on workplace
	procedures
	5.5 Written communication is done as per organizational
	standards
	5.6 Inquiries are responded according to organizational standard
L	

# RANGE

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

Variable	Range
<i>1</i> . Communication	Language switch
strategies may	Comprehension check

include but not	Repetition
limited to:	Asking confirmation
	Paraphrase
	Clarification request
	Translation
	• Restructuring
	Approximation
	Generalization
2. Effective group	• Identifying and evaluating what is occurring within
interaction may	an interaction in a nonjudgmental way
include but not	Using active listening
limited to:	• Making decision about appropriate words, behavior
	• Putting together response which is culturally
	appropriate
	• Expressing an individual perspective
	• Expressing own philosophy, ideology and
	background and exploring impact with relevance to
	communication
3. Situations may	Establishing rapport
include but not	Eliciting facts and information
limited to:	Facilitating resolution of issues
	Developing action plans
	Diffusing potentially difficult situations

# **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:

- Communication
- Active listening
- Interpretation
- Negotiation
- Writing

## **Required Knowledge**

The individual needs to demonstrate knowledge of:

• Communication process

- Dynamics of groups
- Styles of group leadership
- Key elements of communications strategy

## **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	Assessment requires evidence that the candidate:
	aspects of	1.1 Developed communication strategies to meet the
	Competency	organization requirements and applied in the workplace
		1.2 Established and maintained communication pathways for
		effective communication in the workplace
		1.3 Used communication strategies involving exchanges of
		complex oral information
2.	Resource	The following resources should be provided:
	Implications	2.1 Access to relevant workplace or appropriately simulated
		environment where assessment can take place
		2.2 Materials relevant (6) the proposed activity or tasks
3.	Methods of	Competency in this unit may be assessed through:
	Assessment	3.1 Direct observation
		3.2 Oral questioning
		3.3 Written texts
4.	Context of	Competency may be assessed:
	Assessment	4.1 On-the-job
		4.2 Off-the –job
		4.3 During Industrial attachment
5.	Guidance	Holistic assessment with other units relevant to the industry
	information	sector, workplace and job role is recommended.
	for	
	assessment	

## DEMONSTRATE NUMERACY SKILLS

## UNIT CODE: MED/OS/NUD/BC/02/6/A

## UNIT DESCRIPTION

This unit describes the competencies required to demonstrate numeracy skills. It involves; applying a wide range of mathematical calculations for work; applying ratios, rates and proportions to solve problems; estimating, measuring and calculating measurement for work; using detailed maps to plan travel routes for work; using geometry to draw and construct 2D and 3D shapes for work; collecting, organizing and interpreting statistical data; using routine formula and algebraic expressions for work and using common functions of a scientific calculator.

ELEMENT	PERFORMANCE CRITERIA	
These describe the key	These are assessable statements which specify the required	
outcomes which make	level of performance for each of the elements.	
up workplace function.	Bold and italicized terms are elaborated in the Range.	
1. Apply a wide range of mathematical calculations for work	<ol> <li>Mathematical information embedded in a range of workplace tasks and texts is extracted as per workplace procedures.</li> <li>Mathematical information is interpreted and comprehended as per job specifications</li> <li>A range of mathematical and problem solving processes are selected and used as per job specification</li> <li>Different forms of fractions, decimals and percentages are flexibly used as per SOPs</li> <li>Calculation performed with positive and negative numbers as per SOPs</li> <li>Numbers are expressed as powers and roots and are used in calculations as per SOPs</li> <li>Calculations done using routine formulas as per SOPs</li> <li>Estimation and assessment processes are used to check outcome as per workplace procedures</li> <li>Mathematical language is used to discuss and explain</li> </ol>	
	the processes, results and implications of the task as per workplace procedures	
2. Use and apply ratios, rates and	<ul><li>2.1 Information regarding ratios, rates and proportions extracted from a range of workplace tasks and texts as per SOPs</li></ul>	

## **ELEMENTS AND PERFORMANCE CRITERIA**

proportions for work	<ul> <li>2.2 Mathematical information related to ratios, rate and proportions is analysed as per SOPs</li> <li>2.3 Problem solving processes are used to undertake the task as per workplace procedures</li> <li>2.4 Equivalent ratios and rates are simplified as per SOPs</li> <li>2.5 Quantities are calculated using ratios, rates and proportions as per SOPS</li> <li>2.6 Graphs, charts or tables are constructed to represent ratios, rates and proportions as per SOPs</li> <li>2.7 The outcomes reviewed and checked as per job specifications</li> <li>2.8 Information is record using mathematical language and symbols as per workplace procedures</li> </ul>
3. Estimate, measure and calculate measurement for work	<ul> <li>3.1 Measurement information embedded in workplace texts and tasks are extracted and interpreted as per job specifications</li> <li>3.2 Appropriate workplace measuring equipment are identified and selected as per job specifications</li> <li>3.3 Accurate measurements are estimated and made as per SOPs</li> <li>3.4 The area of <i>2D shapes</i> including compound shapes are calculated as per SOPs</li> <li>3.5 The volume of 3D shapes is calculated using relevant formulas as per SOPs</li> <li>3.6 Sides of right angled triangles are calculated using Pythagoras' theorem as per SOPs</li> <li>3.7 conversions are perform between units of measurement as per job specification</li> <li>3.8 Problem solving processes are used to undertake the task as per workplace Procedures</li> <li>3.9 The measurement outcomes are reviewed and checked as per workplace procedures</li> <li>3.10 Information is recorded using mathematical language and symbols appropriate for the task as per workplace procedures</li> </ul>
4. Use detailed maps to plan travel routes for work	<ul> <li>4.1 Different types of maps are identified and interpreted as per job requirements</li> <li>4.2 Key features of maps are identified as per job requirements</li> </ul>

	4.3 Scales are identified and interpreted as per job
	requirements
	4.4 Scales are applied to calculate actual distances
	4.5 Positions or locations are determined using directional
	information as per job requirements
	4.6 Routes are planned by determining directions and
	calculating distances, speeds and times as per job
	requirements
	4.7 Information is gathered and identified and relevant
	factors related to planning a route checked as per job requirements
	4.8 Relevant equipment is select and checked for
	accuracy and operational effectiveness as per job
	requirements
	4.9 Task is planned and recorded using specialized
	mathematical language and symbols appropriate for
	the task as per job requirements
5. Use geometry to	5.1 A range of 2D shapes and 3D shapes and their uses in
draw 2D shapes	work contexts is identified as per job specifications
and construct 3D	5.2 Features of 20 and 3D shapes are named and
shapes for work	described as per job specifications
shupes for work	5.3 Types of angles in 2D and 3D shapes are identified as
	per job specifications
	5.4 Angles are drawn, estimated and measured using
	geometric instruments as per job requirements
	5.5 Angle properties of 2D shapes are named and
	identified as per SOPs
	5.6 Angle properties are used to evaluate unknown angles
	in shapes as per SOPs
	5.7 Properties of perpendicular and parallel lines are
	applied to shapes as per SOPs
	5.8 Understanding and use of symmetry is demonstrated
	as per SOPs
	5.9 Understanding and use of similarity is demonstrated
	as per SOPs
	5.10 The workplace tasks and mathematical processes
	required are identified as per workplace procedures
	5.112D shapes is drawn for work as per job specification
	5.123D shapes is constructed for work as per job
	specification
	spontation

	5.13 The outcomes are reviewed and checked as per
	workplace procedures
	5.14 Specialized mathematical language and symbols
	appropriate for the task are used as per SOPs
6. Collect, organize,	6.1 Workplace issue requiring investigation are identified
and interpret	as per workplace procedures
statistical data for	6.2 Audience / population / sample unit is determined as
work	per workplace procedures as per workplace
	procedures
	6.3 Data to be collected is identified as per workplace
	procedures
	6.4 Data collection method is selected as per workplace
	procedures
	6.5 Appropriate statistical data is collected and organized
	as per SOPs
	6.6 Data is illustrated in appropriate formats as per SOPs
	6.7 The effectiveness of different types of graphs are
	compared as per SOPs
	6.8 The summary statistics for collected data is calculated
	as per SOPs
	6.9 The results / findings are interpreted as per SOPs
	6.10 Data is checked to ensure that it meets the expected
	results and content as per workplace procedures
	6.11 Information from the results including tables,
	graphs and summary statistics is extracted and
	interpreted as per workplace procedure
	6.12 Mathematical language and symbols are used to
	report results of investigation as per workplace
	procedure
7. Use routine	7.1 Understanding of informal and symbolic notation,
formula and	representation and conventions of algebraic
algebraic	expressions is demonstrated as per SOPs
expressions for	7.2 Simple algebraic expressions and equations are
work	developed as per job specification
	7.3 Operate on algebraic expressions as per job
	requirement
	7.4 Algebraic expressions are simplified as per job
	requirement
	7.5 Substitution into simple routine equations is done as
	per SOPs

<ol> <li>Use common functions of a</li> </ol>	<ul> <li>7.6 Routine formulas used for work tasks are identified and comprehended as per SOPs</li> <li>7.7 Routine formulas are evaluate by substitution as per SOPs</li> <li>7.8 Routine formulas transposed as per SOPs</li> <li>7.9 Appropriate formulas are identified and used for work related tasks as per workplace procedures</li> <li>7.10 Outcomes are checked and result of calculation used as per workplace procedures</li> <li>8.1 Required numerical information to perform tasks is located as per job specification</li> </ul>
scientific calculator for work	<ul> <li>8.2 The order of operations and function keys necessary to solve mathematical calculation are determined as per job specification</li> <li>8.3 Function keys on a scientific calculator are identified and used as per SOPs</li> <li>8.4 Estimations are referred to check reasonableness of problem solving process as per workplace procedures</li> <li>8.5 Appropriate mathematical language, symbols and conventions are used to report results as per workplace procedures</li> </ul>

# 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.

Variable	Range
<ol> <li>2D shapes may include but not limited may include but not limited to:</li> </ol>	6

# **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:

- Measuring
- Logical thinking
- Computing
- Drawing of graphs
- Applying mathematical formulas
- Analytical

## **Required knowledge**

The individual needs to demonstrate knowledge of:

- Types of common shapes
- Differentiation between two dimensional shapes / objects
- Formulae for calculating area and volume
- Types and purpose of measuring instruments
- Units of measurement and abbreviations
- Fundamental operations (addition, subtraction, division, multiplication)
- Rounding techniques
- Types of fractions
- Different types of tables and graphs
- Meaning of graphs, such as increasing decreasing, and constant value

05

Preparation of basic data, tables & graphs

## **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	Assessment requires evidence that the candidate:
of Competency	<ol> <li>1. 1Developed communication strategies to meet the organization requirements and applied in the workplace</li> <li>1. 2Established and maintained communication</li> </ol>
	<ul><li>pathways for effective communication in the workplace</li><li>1. 3 Used communication strategies involving exchanges of complex oral information</li></ul>
2. Resource	The following resources should be provided:
Implications	<ul><li>2.1 Access to relevant workplace or appropriately simulated environment where assessment can take place</li><li>2.2 Materials relevant to the proposed activity or tasks</li></ul>

3. Methods of Assessment	Competency in this unit may be assessed through: 3.1 Observation 3.2 Oral questioning 3.3 Written test 3.4 Portfolio of Evidence 3.5 Interview 3.6 Third party report
4. Context of Assessment	Competency may be assessed: 4.1 On-the-job 4.2 Off-the –job 4.3 During Industrial attachment
5. Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

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## DEMONSTRATE DIGITAL LITERACY

#### UNIT CODE: MED/OS/NUD/BC/03/6/A

## **UNIT DESCRIPTION**

This unit describes competencies required to demonstrate digital literacy. It involves, identifying computer software and hardware, applying security measures to data, hardware, and software in automated environment, applying computer software in solving task, applying internet and email in communication at workplace, applying desktop publishing in official assignments and preparing presentation packages.

ELEMENT	PERFORMANCE CRITERIA		
These describe the key outcomes which	These are assessable statements which specify the required level of performance for each of the elements.		
make up workplace function	Bold and italicized terms are elaborated in the Range		
1. Identify appropriate computer	<ul><li>1.1 Concepts of ICT are determined in accordance with computer equipment</li><li>1.2 Classifications of computers are determined in accordance</li></ul>		
software and hardware	with manufacturers specification 1.3 Appropriate computer software is identified according to		
	<ul><li>manufacturer's specification</li><li>1.4 Appropriate computer hardware is identified according to manufacturer's specification</li></ul>		
	1.5 Functions and commands of operating system are determined in accordance with manufacturer's		
	specification		
2. Apply security measures to	2.1 <i>Data security and privacy are classified</i> in accordance with the prevailing technology		
data, hardware,	2.2 <i>Security threats</i> reidentified <i>and control measures</i> are		
software in automated	applied in accordance with laws governing protection of ICT		
environment	2.3 Computer threats and crimes are detected in accordance to Information Management security guidelines		
	2.4 Protection against computer crimes is undertaken in accordance with laws governing protection of ICT		

## ELEMENTS AND PERFORMANCE CRITERIA

2	A	0.1	
3.	11 2 1	3.1	Word processing concepts are applied in resolving
	software in		workplace tasks, report writing and documentation as per
	solving tasks		the job requirements
		3.2	Word processing utilities are applied in accordance with
			workplace procedures
		3.3	Worksheet layout is prepared in accordance with work
			procedures
		3.4	Worksheet is built and data manipulated in the worksheet
			in accordance with workplace procedures
		3.5	Continuous data manipulated on worksheet is undertaken
			in accordance with work requirements
		3.6	Database design and manipulation is undertaken in
			accordance with office procedures
		3.7	Data sorting, indexing, storage, retrieval and security is
			provided in accordance with workplace procedures
4.	Apply internet	4.1	Electronic mail addresses are opened and applied in
	and email in		workplace communication in accordance with office
	communication		policy
	at workplace	4.2	Office internet functions are defined and executed in
			accordance with office procedures
		4.3	Network configuration is determined in accordance with
			office operations procedures
		4.4	Official World Wide Web is installed and managed
			according to workplace procedures
5.	Apply Desktop	5.1	Desktop publishing functions and tools are identified in
	publishing in		accordance with manufactures specifications
	official	5.2	Desktop publishing tools are developed in accordance with
	assignments		work requirements
	C	5.3	Desktop publishing tools are applied in accordance with
			workplace requirements
		5.4	Typeset work is enhanced in accordance with workplace
			standards
6.	Prepare	6.1	Types of presentation packages are identified in
	presentation		accordance with office requirements
	packages	6.2	Slides are created and formulated in accordance with
			workplace procedures
		6.3	Slides are edited and run-in accordance with work
			procedures
		6.4	Slides and handouts are printed according to work
		0.1	requirements
			requirements

# 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.

Variable	Range
1. Appropriate computer hardware may include but not limited to:	<ul> <li>Collection of physical parts of a computer system such as:</li> <li>Computer case, monitor, keyboard, and mouse</li> <li>All the parts inside the computer case, such as the hard disk drive, motherboard and video card</li> </ul>
2. Data security and privacy may include but not limited to:	<ul> <li>Confidentiality of data</li> <li>Cloud computing</li> <li>Integrity -but-curious data surfing</li> </ul>
3. Security and control measures may include but not limited to:	<ul> <li>Counter measures against cyber terrorism</li> <li>Risk reduction</li> <li>Cyber threat issues</li> <li>Risk management</li> <li>Pass-wording</li> </ul>
4. Security threats may include but not limited to:	<ul><li>Cyber terrorism</li><li>Hacking</li></ul>

# **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:

- Analytical skills
- Interpretation
- Typing
- Communication
- Computing (applying fundamental operations such as addition, subtraction, division and multiplication)
- Using calculator

• Basic ICT skills

## **Required Knowledge**

The individual needs to demonstrate knowledge of:

- Software concept
- Functions of computer software and hardware
- Data security and privacy
- Computer security threats and control measures
- Technology underlying cyber-attacks and networks
- Cyber terrorism
- Computer crimes
- Detection and protection of computer crimes

✓

- Laws governing protection of ICT
- Word processing;
- ✓ Functions and concepts of word processing.
- ✓ Documents and tables creation and manipulations
- ✓ Mail merging
- ✓ Word processing utilities
- Spread sheets;
- ✓ Meaning, formulae, function and charts, uses and layout
- ✓ Data formulation, manipulation and application to cells
- Database;
- ✓ Database design, data manipulation, sorting, indexing, storage retrieval and security
- Desktop publishing;
  - ✓ Designing and developing desktop publishing tools
  - ✓ Manipulation of desktop publishing tools
  - ✓ Enhancement of typeset work and printing documents
- Presentation Packages;
  - ✓ Types of presentation Packages
  - ✓ Creating, formulating, running, editing, printing and presenting slides and handouts
- Networking and Internet;
  - ✓ Computer networking and internet.
  - ✓ Electronic mail and world wide web
- Emerging trends and issues in ICT;
  - $\checkmark$  Identify and integrate emerging trends and issues in ICT
  - ✓ Challenges posed by emerging trends and issues

# **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	Assessment requires evidence that the candidate:
	Aspects of	1.1 Identified and controlled security threats
	Competency	1.2 Detected and protected computer crimes
		1.3 Applied word processing in office tasks
		1.4 Designed, prepared work sheet and applied data to the cells
		in accordance to workplace procedures
		1.5 Opened electronic mail for office communication as per
		workplace procedure
		1.6 Installed internet and World Wide Web for office tasks in
		accordance with office procedures
		1.7 Integrated emerging issues in computer ICT applications
		1.8 Applied laws governing protection of ICT
2.	Resource	The following resources should be provided:
	Implications	2.1 Access to relevant workplace where assessment can take
		place
		2.2 Appropriately simulated environment where assessment
		can take place
3.	Methods of	Competency may be assessed through:
	Assessment	3.1 Observation
		3.2 Oral questioning
		3.3 Written test
		3.4 Portfolio of Evidence
		3.5 Interview
		3.6 Third party report
4.	Context of	Competency may be assessed:
	Assessment	4.1 On-the-job
		4.2 Off-the –job
		4.3 During Industrial attachment
5.	Guidance	Holistic assessment with other units relevant to the industry sector,
	information for	workplace and job role is recommended.
	assessment	

#### DEMONSTRATE ENTREPRENEURIAL SKILLS

#### UNIT CODE : MED/OS/NUD/BC/04/6/A

## **UNIT DESCRIPTION**

This unit covers the competencies required to demonstrate understanding of entrepreneurship. It involves demonstrating understanding of an entrepreneur, entrepreneurship, and self-employment, identifying entrepreneurship opportunities, creating entrepreneurial awareness, applying entrepreneurial motivation, developing business innovative strategies and developing business plan.

ELEMENT	PERFORMANCE CRITERIA
1. Demonstrate	1. 1 Entrepreneurs and Business persons are
understanding of an	distinguished as per principles of
Entrepreneur	entrepreneurship
	1.2 Types of entrepreneurs are identified as per
	principles of entrepreneurship
	1.3 Ways of becoming an Entrepreneur are
	identified as per principles of
	Entrepreneurship
	1.4 Characteristics of Entrepreneurs are
	identified as per principles of
	Entrepreneurship
	1. 5 Factors affecting Entrepreneurship
	development are explored as per principles of
	Entrepreneurship
2. Demonstrate	2. 1 Entrepreneurship and self-employment are
understanding of	distinguished as per principles of
Entrepreneurship and self-	entrepreneurship
employment	2. 2 Importance of self-employment is analysed
	based on business procedures and strategies
	2.3 Requirements for entry into self-
	employment are identified according to
	business procedures and strategies
	2. 4 Role of an Entrepreneur in business is
	determined according to business procedures
	and strategies

	2. 5 Contributions of Entrepreneurs to National
	development are identified as per business
	procedures and strategies
	2. 6 Entrepreneurship culture in Kenya is
	explored as per business procedures and
	strategies
	2. 7 Born or made Entrepreneurs are distinguished
	as per entrepreneurial traits
3. Identify Entrepreneurship	3.1 Sources of business ideas are identified as per
opportunities	business procedures and strategies
	3.2 Business ideas and opportunities are
	generated as per business procedures and
	strategies
	3.3 Business life cycle is analysed as per
	business procedures and strategies
	3.4 Legal aspects of business are identified as per
	procedures and strategies
	3.5 Product demand is assessed as per market
	strategies
	3.6 Types of <i>business environment</i> are identified
	and evaluated as per business procedures
	3.70 Factors to consider when evaluating business
	environment are explored based on business
	procedure and strategies
	3.8 Technology in business is incorporated as per
	best practice
4. Create entrepreneurial	4.1 <i>Forms of businesses</i> are explored as per
awareness	business procedures and strategies
	4.2 Sources of business finance are identified as
	per business procedures and strategies
	4.3 Factors in selecting source of business
	finance are identified as per business
	procedures and strategies
	4.4 Governing policies on Small Scale
	Enterprises (SSEs) are determined as per
	business procedures and strategies
	4.5 Problems of starting and operating SSEs are
	explored as per business procedures and
	strategies

	5.1 <i>Internal and external motivation</i> factors are
5. Apply entrepreneurial	determined in accordance with motivational
motivation	theories
	5.2 Self-assessment is carried out as per
	entrepreneurial orientation
	5.3 Effective communications are carried out in
	accordance with communication principles
	5.4 Entrepreneurial motivation is applied as per
	motivational theories
	6.1Business innovation strategies are determined
6. Develop innovative	in accordance with the organization strategies
business strategies	6.2 Creativity in business development is
	demonstrated in accordance with
	business strategies
	6.3 <i>Innovative business strategies</i> are
	developed as per business principles
	6.4 Linkages with other entrepreneurs are
	created as per best practice
	6.5 ICT is incorporated in business growth
	and development as per best practice
	7.1 Identified Business is described as per
7. Develop Business Plan	business procedures and strategies
	7.2 Marketing plan is developed as per business
	plan format
	7.3 Organizational/Management plan is prepared
	in accordance with business plan format
	7.4 Production/operation plan in accordance with
	business plan format
	7.5 Financial plan is prepared in accordance with
	the business plan format
	7.6 Executive summary is prepared in accordance
	with business plan format
	7.7 Business plan is presented as per best practice

# RANGE

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

, and the second s	Variable	Range
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1. Types of entrepreneurs may	Innovators
include but not limited to:	Imitators
	Craft
	Opportunistic
	<ul><li>Speculators</li></ul>
2. Characteristics of Entrepreneurs	Creative
may include but not limited to:	Innovative
may menude out not minice to.	<ul><li>Innovative</li><li>Planner</li></ul>
	<ul><li> Flame</li><li> Risk taker</li></ul>
	Networker
	• Confident
	• Flexible
	• Persistent
	• Patient
	• Independent
	• Future oriented
	• Goal oriented
3. Requirements for entry into self-	• Technical skills
employment may include but not limited to	• Management skills
	• Entrepreneurial skills
	Resources
	• Infrastructure
4. Internal and external motivation	• Interest
may include but not limited to:	Passion
	• Freedom
	• Prestige
	• Rewards
	• Punishment
	Enabling environment
	Government policies
5 Dusinges environment more in the la	• External
5. Business environment may include but not limited to:	• Internal
but not minited to:	• Intermediate
	Sole proprietorship
6. Forms of businesses may include	Partnership
but not limited to:	T · · · ·
	Limited companies

7. Governing policies may include but not limited to:	<ul> <li>Increasing scope for finance</li> <li>Promoting cooperation between entrepreneurs and private sector</li> <li>Reducing regulatory burden on entrepreneurs</li> <li>Developing IT tools for entrepreneurs</li> </ul>
8. Innovative business strategies may include but not limited to:	<ul> <li>New products</li> <li>New methods of production</li> <li>New markets</li> <li>New sources of supplies</li> <li>Change in industrialization</li> </ul>

## **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:

- Analytical
- Management
- Problem-solving
- Root-cause analysis
- Communication

## **Required Knowledge**

The individual needs to demonstrate knowledge of:

- Decision making
- Business communication
- Change management
- Competition
- Risk
- Net working
- Time management
- Leadership
- Factors affecting entrepreneurship development
- Principles of Entrepreneurship
- Features and benefits of common operational practices, e. g., continuous improvement (kaizen), waste elimination,

- Conflict resolution
- Health, safety and environment (HSE) principles and requirements
- Customer care strategies
- Basic financial management
- Business strategic planning
- Impact of change on individuals, groups and industries
- Government and regulatory processes
- Local and international market trends
- Product promotion strategies
- Market and feasibility studies
- Government and regulatory processes
- Local and international business environment
- Relevant developments in other industries
- Regional/ County business expansion strategies

## **EVIDENCE GUIDE**

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

performance enterna, required skins and knowledge and range.		
1. Critical Aspects of	1.1	Assessment requires evidence that the candidate:
Competency	1.2	Distinguished entrepreneurs and businesspersons
		correctly
	1.3	Identified ways of becoming an entrepreneur
		appropriately
	1.4	Explored factors affecting entrepreneurship
		development appropriately
	1.5	Analysed importance of self-employment
		accurately
	1.6	Identified requirements for entry into self-
		employment correctly
	1.7	Identified sources of business ideas correctly
	1.8	Generated Business ideas and opportunities
		correctly
	1.9	Analysed business life cycle accurately
	1.10	Identified legal aspects of business correctly
	1.11	Assessed product demand accurately
	1.12	Determined Internal and external motivation
		factors appropriately
	1.13	Carried out communications effectively
	1.14	Identified sources of business finance correctly

		1.15 Determined Governing policy on small scale
		enterprise appropriately
		1. 16 Explored problems of starting and operating SSEs
		effectively
		1. 17 Developed Marketing,
		Organizational/Management,
		Production/Operation and Financial plans
		correctly
		1. 18 Prepared executive summary correctly
		1. 19 Determined business innovative strategies
		appropriately
		1. 20 Presented business plan effectively
2.	Resource	The following resources should be provided:
	Implications	2.1 Access to relevant workplace where assessment
		can take place
		2.2 Appropriately simulated environment where
		assessment can take place
3.	Methods of	3.1 Written tests
	Assessment	3.2 Oral questions
		3.3 Third party report
		3.4 Interviews
		3.5 Portfolio of Evidence
4.	Context of	Competency may be assessed
	Assessment	4.1 On-the-job
		4.2 Off-the –job
		4.3 During Industrial attachment
5.	Guidance	Holistic assessment with other units relevant to the
	information for	industry sector, workplace and job role is recommended.
	assessment	

## DEMONSTRATE EMPLOYABILITY SKILLS

UNIT CODE: MED/OS/NUD/BC/05/6/A

#### **UNIT DESCRIPTON**

This unit covers competencies required to demonstrate employability skills. It involves conducting self-management, demonstrating interpersonal communication, critical safe work habits, leading a workplace team, planning and organizing work, maintaining professional growth and development, demonstrating workplace learning, problem solving skills and managing ethical performance.

ELEMENT	PERFORMANCE CRITERIA
These describe the key outcomes which make up workplace function.	These are assessable statements which specify the required level of performance for each of the elements.
	Bold and italicized terms are elaborated in the Range
1. Conduct self-	1.1 Personal vision, mission and goals are formulated
management	based on potential and in relation to organization objectives
	1.2 Emotional intelligence is demonstrated as per
	workplace requirements.
	1.3 Individual performance is evaluated and monitored according to the agreed targets.
	1.4 Assertiveness is developed and maintained based on
	the requirements of the job.
	1.5 Accountability and responsibility for own actions are
	demonstrated based on workplace instructions.
	1.6 Self-esteem and a positive self-image are developed and maintained based on values.
	1.7 Time management, attendance and punctuality are
	observed as per the organization policy.
	1.8 Goals are managed as per the organization's objective
	1.9 Self-strengths and weaknesses are identified based on
	personal objectives
2. Demonstrate	2.1 Writing skills are demonstrated as per communication
interpersonal	policy
communication	2.2 Negotiation and persuasion skills are demonstrated as
	per communication policy

## ELEMENTS AND PERFORMANCE CRITERIA

	<ul> <li>2.3 Internal and external stakeholders' needs are identified and interpreted as per the communication policy</li> <li>2.4 Communication networks are established based on workplace policy</li> <li>2.5 Information is shared as per communication policy</li> </ul>
3. Demonstrate critical safe work habits	<ul> <li>3.1 Stress is managed in accordance with workplace policy.</li> <li>3.2 Punctuality and time consciousness is demonstrated in line with workplace policy.</li> <li>3.3 Personal objectives are integrated with organization goals based on organization's strategic plan.</li> <li>3.4 <i>Resources</i> are utilized in accordance with workplace policy.</li> <li>3.5 Work priorities are set in accordance to workplace goals and objectives.</li> <li>3.6 Leisure time is recognized and utilized in line with</li> </ul>
	<ul> <li>personal objectives.</li> <li>3.7 <i>Drugs and substances of abuse</i> are identified and avoided based on workplace policy.</li> <li>3.8 HIV and AIDS prevention awareness is demonstrated in line with workplace policy.</li> <li>3.9 Safety consciousness is demonstrated in the workplace based on organization safety policy.</li> <li>3.10 <i>Emerging issues</i> are identified and dealt with in accordance with organization policy.</li> </ul>
4. Lead a workplace team	<ul> <li>4.1 Performance targets for the <i>team</i> are set based on organization's objectives</li> <li>4.2 Duties are assigned in accordance with the organization policy.</li> <li>4.3 <i>Forms of communication</i> in a team are established according to organization's policy.</li> <li>4.4 Team performance is evaluated based on set targets as per workplace policy.</li> <li>4.5 Conflicts are resolved between team members in line with organization policy.</li> <li>4.6 Gender related issues are identified and mainstreamed in accordance workplace policy.</li> <li>4.7 Human rights and fundamental freedoms are identified and respected as Constitution of Kenya 2010.</li> </ul>

		4.8 Healthy relationships are developed and maintained in
		line with workplace.
5	Plan and organize	5.1 Work plans are prepared based on activities and budget.
5.	work	
	WOIK	5.2 Assigned tasks are interpreted and expectations
		identified as per the workplace instructions.
		5.3 Task occupational safety and health requirements are
		identified and observed regulations.
		5.4 Work resources are identified, mobilized, allocated and
		utilized based on organization work plans.
		5.5 Work activities are monitored and evaluated in line with
		work plans and workplace policy.
		5.6 Work plans are reviewed based on target and available
		resources.
6.	Maintain	6.1 Personal training needs are identified and assessed in
	professional	line with the requirements of the job.
	growth and	6.2 Training and career opportunities are identified and
	development	utilized based on job requirements.
		6.3 Resources for training are mobilized and allocated
		based organizations and individual skills needs.
		6.4 Licensees and certifications relevant to job and career
		are obtained and renewed as per policy.
		6.5 Work priorities and personal commitments are
		balanced and managed based on requirements of the
		job and personal objectives.
		6.6 Recognitions are sought as proof of career
		advancement in line with professional requirements.
7.	Demonstrate	7.1 Learning opportunities are sought and managed based
	workplace learning	on job requirement and organization policy.
		7.2 Improvement in performance is demonstrated based on
		courses attended.
		7.3 Application of learning is demonstrated in both
		technical and non-technical aspects based on
		requirements of the job
		7.4 Time and effort is invested in learning new skills based
		on job requirements
		7.5 Initiative is taken to create more effective and efficient
		processes and procedures in line with workplace policy.
		7.6 New systems are developed and maintained in
		accordance with the requirements of the job.

	7.7 Awareness of personal role in workplace <i>innovation</i> is
	demonstrated based on requirements of the job.
8. Demonstrate	8.1 Creative, innovative and practical solutions are
problem solving	developed based on the problem
skills	8.2 Independence and initiative in identifying and solving
	problems is demonstrated based on requirements of the
	job.
	8.3 Team problems are solved as per the workplace guidelines
	8.4 Problem solving strategies are applied as per the workplace guidelines
	8.5 Problems are analyzed and assumptions tested as per
	the context of data and circumstances
9. Manage ethical	9.1 Policies and guidelines are observed as per the
performance	workplace requirements
	9.2 Self-worth and professionalism is exercised in line with
	personal goals and organizational policies
	9.3 Code of conduct is observed as per the workplace requirements
	9.4 Integrity is demonstrated as per legal requirement
	e <sup>or</sup>

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

Variable	Range
<ol> <li>Drug and substance abuse may include but not limited to:</li> </ol>	Commonly abused • Alcohol • Tobacco • Miraa • Over-the-counter drugs • Cocaine • Bhang
2. Feedback may include but not limited to:	<ul> <li>Glue</li> <li>Verbal</li> <li>Written</li> <li>Informal</li> <li>Formal</li> </ul>

3. Relationships may include but not limited to:	<ul> <li>Man/Woman</li> <li>Trainer/trainee</li> <li>Employee/employer</li> <li>Client/service provider</li> <li>Husband/wife</li> <li>Boy/girl</li> <li>Parent/child</li> <li>Sibling relationships</li> </ul>
<ol> <li>Forms of communication may include but not limited to:</li> </ol>	<ul> <li>Written</li> <li>Visual</li> <li>Verbal</li> <li>Non verbal</li> <li>Formal and informal</li> </ul>
5. Team may include but not limited to:	<ul> <li>Small work group</li> <li>Staff in a section/department</li> <li>Inter-agency group</li> </ul>
<ol> <li>Personal growth may include but not limited to:</li> </ol>	<ul> <li>Growth in the job</li> <li>Career mobility</li> <li>Gains and exposure the job gives</li> <li>Net workings</li> <li>Benefits that accrue to the individual as a result of noteworthy performance</li> </ul>
7. Personal objectives may include but not limited to:	<ul> <li>Long term</li> <li>Short term</li> <li>Broad</li> <li>Specific</li> </ul>
8. Trainings and career opportunities may includes but not limited to	<ul> <li>Participation in training programs</li> <li>Serving as Resource Persons in conferences and workshops</li> </ul>
9. Resource may include may but not limited to:	<ul><li>Human</li><li>Financial</li><li>Technology</li></ul>
10. Innovation may include but not limited to:	<ul> <li>New ideas</li> <li>Original ideas</li> <li>Different ideas</li> <li>Methods/procedures</li> <li>Processes</li> <li>New tools</li> </ul>

11. Emerging issues may	Terrorism
include but not limited to:	Social media
	National cohesion
	Open offices
12. Range of media for	Mentoring
learning may include but	• peer support and networking
not limited to:	• IT and courses

## **REQUIRED SKILLS AND KNOWLEDGE**

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

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#### **Required Skills**

The individual needs to demonstrate the following skills:

- Interpersonal
- Communication
- Critical thinking
- Organizational
- Negotiation
- Monitoring
- Evaluation
- Record keeping
- Problem solving
- Decision Making
- Resource utilization
- Resource mobilization

## **Required Knowledge**

The individual needs to demonstrate knowledge of:

- Work values and ethics
- Company policies
- Company operations, procedures and standards
- Occupational Health and safety procedures
- Fundamental rights at work
- Workplace communication
- Concept of time
- Time management
- Decision making
- Types of resources



- Work planning
- Organizing work
- Monitoring and evaluation
- Record keeping
- Gender mainstreaming
- HIV and AIDS
- Drug and substance abuse
- Professional growth and development
- Technology in the workplace
- Innovation
- Emerging issues

## **EVIDENCE GUIDE**

1.	Critical aspects	Assessment requires evidence that the candidate:
	of Competency	1.1 Conducted self-management
		1.2 Demonstrated interpersonal communication
		1.3 Demonstrated critical safe work habits
		1.4 Demonstrated the ability to lead a workplace team
		1.5 Planned and organized work
		1.6 Maintained professional growth and development
		1.7 Demonstrated workplace learning
		1.8 Demonstrated problem solving skills
		1.9 Demonstrated the ability to manage performance ethically
2.	Resource	The following resources should be provided:
	Implications	2.1 Access to relevant workplace where assessment can take
		place
		2.2 Appropriately simulated environment where assessment
		can take place
3.	Methods of	Competency in this unit may be assessed through:
	Assessment	3.1 Observation
		3.2 Oral questioning
		3.3 Written test
		3.4 Portfolio of Evidence
		3.5 Interview
		3.6 Third party report

4.	Context of	Competency may be assessed:
	Assessment	4.1 On-the-job
		4.2 Off-the –job
		4.3 During Industrial attachment
5.	Guidance	Holistic assessment with other units relevant to the industry sector,
	information for	workplace and job role is recommended.
	assessment	

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# DEMONSTRATE ENVIRONMENTAL LITERACY UNIT CODE: MED/OS/NUD/BC/06/6/A

## **UNIT DESCRIPTION**

This unit specifies the competencies required to demonstrate environmental literacy. It involves, controlling environmental hazard and environmental pollution, demonstrating sustainable resource use, evaluating current practices in relation to resource usage, identifying environmental legislations/conventions for environmental concerns, implementing specific environmental programs, monitoring activities on environmental protection/Programs, analyzing resource use and developing resource conservation plans

ELEMENT	PERFORMANCE CRITERIA
These describe the key outcomes which make up workplace function.	These are assessable statements which specify the required level of performance for each of the elements. <i>Bold and italicized terms are elaborated in the Range</i>
1. Control environmental hazard	<ol> <li>Storage methods for environmentally hazardous materials are strictly followed according to environmental regulations and OSHS.</li> <li>Disposal methods of hazardous wastes are followed according to environmental regulations and OSHS.</li> </ol>
	1. 3 <i>PPE</i> is used according to OSHS.
2. Control environmental Pollution	<ul> <li>2.1 Environmental pollution <i>control measures</i> are implemented in accordance with international protocols.</li> <li>2.2 December of the collideration of the col</li></ul>
	2.2 Procedures for solid waste management are observed according Environmental Management and Coordination Act 1999
	<ul> <li>2.3 Methods for minimizing noise pollution is complied with based on <i>Noise</i> and Excessive Vibration <i>Pollution and Control Regulations</i>, 2009</li> </ul>
3. Demonstrate sustainable resource use	3.1 Methods for minimizing wastage are complied with based on organizational waste management guide

		3.2	Waste management procedures are employed following principles of 3Rs (Reduce, Reuse, Recycle)
		3.3	Methods for economizing and reducing resource
		0.0	consumption are practiced as per the Constitution
			of Kenya 2010 Article 69 .
4.	Evaluate current	4.1	Information on resource efficiency systems and
	practices in relation to		procedures are collected and provided as per work
	resource usage		groups/sector
		4.2	Current resource usage is measured and recorded
			as per work group
		4.3	Current purchasing strategies are analyzed and
			recorded according to industry procedures.
		4.4	Current work processes to access information and
			data is analyzed following enterprise protocol.
5.	Identify environmental	5.1	Environmental legislations/conventions and local
	legislations/conventions		ordinances are identified according to the different
	for environmental		environmental aspects/impact
	concerns	5.2	Industrial standard/environmental practices are
			described according to the different environmental
	T 1 / 'C'	<u> </u>	
6.	Implement specific	6.1	Programs/Activities are identified according to
	environmental programs	6.2	organizations policies and guidelines. Individual roles/responsibilities are
		0.2	Individual roles/responsibilities are determined and performed based on the activities
			identified.
		6.3	Problems/constraints encountered are resolved in
		0.5	accordance with organizations' policies and
			guidelines
		6.4	Stakeholders are consulted based on company
			guidelines
7.	Monitor activities on	7.1	Activities are periodically monitored and Evaluated
	Environmental		according to the objectives of the environmental
	protection/Programs		program
	- C	7.2	Feedback from stakeholders are gathered and
			considered in Proposing enhancements to the
			program based on consultations
		7.3	Data gathered are analyzed based on Evaluation
			requirements

	7.4 Recommendations are submitted based on the	
	findings	
	7.5 Management support systems are set/established to	
	sustain and enhance the program	
	7.6 Environmental incidents are monitored and	
	reported to	
	7.7 concerned/proper authorities	
8. Analyze resource use	8.1 All resource consuming processes are Identified as	
	per the organizational work plan	
	8.2 Quantity and nature of resource consumed is	
	determined based on processes	
	8.3 Resource flow is analyzed as per different parts of	
	the process.	
	8.4 Wastes are classified according to NEMA	
	regulations on waste management.	
9. Develop resource	9.1. Efficiency of use/conversion of resources is	
Conservation plans	determined according to industry protocol.	
	9.2. Causes of low efficiency of use of resources are	
	Determined based on industry protocol.	
	9.3. Plans for increasing the efficiency of resource use	
	are developed based on findings.	
e <sup>o</sup>		

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.

ange
<ul> <li>Mask</li> <li>Gloves</li> <li>Goggles</li> <li>Safety hat</li> <li>Overall</li> <li>Hearing protector</li> </ul>

<ol> <li>Control measures may include but not limited to</li> </ol>	<ul> <li>Methods for minimizing or stopping spread and ingestion of airborne particles</li> <li>Methods for minimizing or stopping spread and ingestion of gases and fumes</li> <li>Methods for minimizing or stopping spread and ingestion of liquid wastes</li> </ul>
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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:

- Measuring
- Recording
- Analytical
- Monitoring
- Communication
- Writing



## **Required Knowledge**

The individual needs to demonstrate knowledge of:

- PPEs
- Environmental regulations
- OSHS
- Pollution
- Waste management
- Principle of 3Rs
- Types of resources
- Techniques in measuring current usage of resources
- Environmental hazards
- Regulatory requirements

# **EVIDENCE GUIDE**

	1 0 1 1	
	1. Critical	Assessment requires evidence that the candidate:
	Aspects of	1.1 Controlled environmental hazard
	Competency	1.2 Controlled environmental pollution
		1.3 Demonstrated sustainable resource use
		1.4 Evaluated current practices in relation to resource usage
		1.5 Demonstrated knowledge of environmental legislations and
		local ordinances according to the different environmental
		issues /concerns.
		1.6 Described industrial standard environmental practices
		according to the different environmental issues/concerns.
		1.7 Resolved problems/ constraints encountered based on
		management standard procedures
		1.8 Implemented and monitored environmental practices on a
		periodic basis as per company guidelines
		1.9 Recommended solutions for the improvement of the
		program
		1.10 Monitored and reported to proper authorities any
	2. Resource	environmental incidents
		The following resources should be provided:
	Implications	2.1 Workplace with storage facilities
		2.2 Tools, materials and equipment relevant to the tasks (e.g.
		Cleaning tools, cleaning materials, trash bags)
		2.3 PPE, manuals and references
		2.4 Legislation, policies, procedures, protocols and local
		ordinances relating to environmental protection
		2.5 Case studies/scenarios relating to environmental Protection
3	Methods of	Competency in this unit may be assessed through:
	Assessment	3.1 Observation
		3.2 Oral questioning
		3.3 Written test
		<ul><li>3.4 Portfolio of Evidence</li><li>3.5 Interview</li></ul>
		3.6 Third party report
4	Context of	Competency may be assessed
+	Assessment	4.1 On-the-job
	1 1000001110111	4.2 Off-the –job
		4.3 During Industrial attachment
L		

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

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# DEMONSTRATE OCCUPATIONAL SAFETY AND HEALTH PRACTICES

## UNIT CODE: MED/OS/NUD/BC/07/6/A

## UNIT DESCRIPTION

This unit specifies the competencies required to demonstrate occupational health and safety practices. It involves identifying workplace hazards and risks, identifying and implementing appropriate control measures to hazards and risks and implementing OSH programs, procedures and policies/guidelines.

ELEMIENTS AND TERFORMANCE CRITERIA			
ELEMENT	PERFORMANCE CRITERIA		
These describe the key	These are assessable statements which specify the		
outcomes which make up	required level of performance for each of the elements.		
workplace function.	Bold and italicized terms are elaborated in the Range		
1. Identify workplace	1.1 <i>Hazards</i> in the workplace are identified <i>based their</i>		
hazards and risk	indicators		
	1.2 Risks and hazards are evaluated based on legal		
	requirements		
	1.3 <b>OSH concerns</b> raised by workers are addressed as		
	per legal requirements.		
2. Control OSH hazards	2.1 Hazard prevention and control measures are		
	implemented as per legal requirement.		
	2.2 Risk assessment is conducted and a risk matrix		
	developed based on likely impact.		
	2.3 Contingency measures, including emergency		
	procedures during workplace incidents and		
	emergencies are recognized and established in		
	accordance with organization procedures.		
3. Implement OSH	3.1 Company OSH program are identified, evaluated		
programs	and reviewed based on legal requirements.		
	3.2 Company OSH programs are implemented as per		
	legal requirements.		
	3.3 Workers are capacity built on OSH standards and		
	procedures as per legal requirements		
	3.4 OSH-related records are maintained as per legal		
	requirements.		
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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.

Variable	Range
1. Hazards may include	• Physical hazards – impact, illumination, pressure,
but not limited to:	noise,
	• vibration, extreme temperature, radiation
	• Biological hazards- bacteria, viruses, plants,
	parasites, mites, molds, fungi, insects
	• Chemical hazards – dusts, fibers, mists, fumes,
	smoke, gasses, vapors
	• Ergonomics
	• Psychological factors – over exertion/ excessive
	force,
	awkward/static positions, fatigue, direct pressure,
	<ul> <li>varying metabolic cycles</li> </ul>
	<ul> <li>Physiological factors – monotony, personal</li> </ul>
	relationship, work out cycle
	<ul> <li>Safety hazards (unsafe workplace condition) –</li> </ul>
	confined space, excavations, falling objects, gas
	leaks, electrical, poor storage of materials and
	waste, spillage, waste and debris
	• Unsafe workers' act (Smoking in off-limited
	areas, Substance and alcohol abuse at work)
2. Indicators may include	• Increased of incidents of accidents, injuries
but not limited to:	• Increased occurrence of sickness or health
	complaints/ symptoms
	• Common complaints of workers related to OSH
	High absenteeism for work-related reasons
3. OSH concerns may	• Workers' experience/observance on presence of
include but not limited	work hazards
to:	• Unsafe/unhealthy administrative arrangements
	(prolonged work hours, no break time, constant
	overtime, scheduling of tasks)
	• Reasons for compliance/non-compliance to use of
	PPEs or other OSH procedures/policies/guidelines

4. Safety gears /PPE	• Arm/Hand guard glavag
(Personal Protective	• Arm/Hand guard, gloves
Equipment) may	• Eye protection (goggles, shield)
include but not limited	• Hearing protection (ear muffs, ear plugs)
	Hair Net/cap/bonnet
to:	Hard hat
	• Face protection (mask, shield)
	<ul> <li>Apron/Gown/coverall/jump suit</li> </ul>
	• Anti-static suits
	High-visibility reflective vest
5. Appropriate risk	• Appropriate risk controls in order of impact are as
controls	follows:
may include but not	• Eliminate the hazard altogether (i.e., get rid of the
limited to:	dangerous machine)
	• Isolate the hazard from anyone who could be
	harmed (i.e., keep the machine in a closed room
	and operate it remotely; barricade an unsafe area
	off)
	• Substitute the hazard with a safer alternative (i.e.,
	replace the machine with a safer one)
	• Use administrative controls to reduce the risk (i.e.,
	train workers how to use equipment safely; train
	workers about the risks of harassment; issue
	signage)
	• Use engineering controls to reduce the risk (i.e.,
	attach guards to the machine to protect users)
	• Use personal protective equipment (i.e., wear
	• gloves and goggles when using the machine)
6. Contingency measures	Evacuation
may include but not	Isolation
limited to:	Decontamination
	• (Calling designed) emergency personnel
7. Incidents and	Chemical spills
emergencies may	Equipment/vehicle accidents
include but not	Explosion
limited to:	• Fire
	• Gas leak
	<ul> <li>Injury to personnel</li> </ul>
	<ul> <li>Structural collapse</li> </ul>
	<ul> <li>Toxic and/or flammable vapors emission.</li> </ul>
	- TOXIC and/or manimable vapors emission.

8.	OSH-related Records	Medical/Health records
	may include but not	• Incident/accident reports
	limited to:	• Sickness notifications/sick leave application
		OSH-related trainings obtained

## **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:

- Communication
- Interpersonal
- Presentation
- Risk assessment
- Evaluation
- Critical thinking
- Problem solving
- Negotiation

## Required Knowledge

The individual needs to demonstrate knowledge of:

- General OSH Principles
- Occupational hazards/risks recognition
- OSH organizations providing services on OSH evaluation and/or work environment measurements (WEM)
- National OSH regulations; company OSH policies and protocols
- Systematic gathering of OSH issues and concerns
- General OSH principles
- National OSH regulations
- Company OSH and recording protocols, procedures and policies/guidelines
- Training and/or counseling methodologies and strategies

## **EVIDENCE GUIDE**

1. Critical	Assessment requires evidence that the candidate:
Aspects of	1.1 Identified hazards in the workplace based their indicators
Competency	1.2 Evaluated workplace hazards based on legal requirements.

	1.3 Addressed OSH concerns raised by workers as per legal requirements.
	1.4 Implemented hazard prevention and control measures as per
	legal requirement.
	1.5 Conducted risk assessment as per legal requirement.
	1.6 Developed risk matrix based on likely impact.
	1.7 Recognized and established contingency measures in
	accordance with organization procedures.
	1.8 Identified, evaluated and reviewed company OSH program
	based on legal requirements.
	1.9 Implemented company OSH programs as per legal
	requirements.
	1.10 Capacity built workers on OSH standards and procedures
	as per legal requirements
	1.11 Maintained OSH-related records as per legal requirements.
2. Resource	The following resources should be provided:
Implications	2.3 Access to relevant workplace where assessment can take
	place
	2.4 Appropriately simulated environment where assessment
	can take place
3. Methods of	Competency in this unit may be assessed through:
Assessment	3.1 Observation
	3.2 Oral questioning
	3.3 Written test
	3.4 Portfolio of Evidence
	3.5 Interview
	3.6 Third party report
4. Context of	Competency may be assessed:
Assessment	4.1 On-the-job
	4.2 Off-the –job
	4.3 During Industrial attachment
5. Guidance	Holistic assessment with other units relevant to the industry sector,
information for	workplace and job role is recommended.
assessment	

# COMMON UNITS OF COMPETENCY.

## DEMONSTRATE THE KNOWLEDGE OF HUMAN ANATOMY

## UNIT CODE: MED/OS/PM/CC/01/6/A

## **UNIT DESCRIPTION**

This unit specifies the competencies required to establish human anatomy. It involves analyzing the scope of anatomy, identifying anatomical terminologies, demonstrating the knowledge of cell and cell division, identifying histological and cytological methods and demonstrating knowledge of types of tissues and their location.

ELEMENT	PERFORMANCE CRITERIA
These describe the <b>key</b> <b>outcomes</b> which make up <b>workplace</b> <b>function</b> .	These are <b>assessable</b> statements which specify the required level of performance for each of the elements. Bold and italicized terms are elaborated in the Range
1. Identify anatomical terminologies	<ul> <li>1.1 Relevant <i>anatomical and physiological terminology</i> identified as per the anatomical position.</li> <li>1.2 Relevant anatomical and physiological terminology applied to daily tasks as per the workplace procedures</li> </ul>
2. Demonstrate the knowledge of cell and cell division	<ul> <li>2.1 Cell types identified as per the workplace procedures</li> <li>2.2 Components of a human cell identified as per the workplace procedures</li> <li>2.3 Processes of cell division outlined as per the SOP</li> <li>2.4 The composition of cytoplasm described as per the workplace procedures</li> <li>2.5 Type of cell division identified as per the SOPs</li> </ul>
3. Identify histological and cytological methods	<ul> <li>3.1 Direct observation performed based on workplace procedures</li> <li>3.2 Histochemical methods identified based on the material available</li> <li>3.3 Chemical methods identified based on the material available</li> <li>3.4 Physical methods identified based on the material available</li> <li>3.5 <i>Staining methods</i> identified as per workplace procedures</li> <li>3.6 Immunohistochemical methods identified based on the material available</li> </ul>

		3.7 X-ray diffraction performed as per the workplace procedures
4. ]	Demonstrate	2.1 <i>Tissue location</i> outlined as per the workplace procedures
1	knowledge of types	2.2 Embryonic tissues identified as per the tissue location
(	of tissues and their	2.3 Types of tissues identified as per the tissue location
1	location	

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. Anatomical and	Proximal
physiological	• Distal
terminology	Cranial
	• Anterior
	• Posterior
2. Staining methods	Hematoxylin and eosin
	• Uranyl acetate and lead citrate
3. Tissue location	• Epithelial
	Connective
	• Adipose
	• Bone
	• Nerve and muscle
4. Types of cell division	• Mitosis
	Meiosis
5. Process of cell	• Interphase
division	• Prophase
	• Prometaphase
	Anaphase telophase
	• Cytokinesis

# **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:

- Basic anatomy
- Anatomical terminologies
- Scope of anatomy

## **EVIDENCE GUIDE**

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

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1. Critical Aspects	Assessment requires evidence that the candidate:
of Competency	1.1 Identified relevant anatomical and physiological
	terminology as per the anatomical position.
	1.2 Applied relevant anatomical and physiological
	terminology to daily tasks as per the workplace procedures
	1.3 Identified cell types as per the workplace procedures
	1.4 Identified components of a human cell as per the
	workplace procedures
	1.5 Outlined processes of cell division as per the SOP
	1.6 Described the composition of cytoplasm as per the
	workplace procedures
	1.7 Performed direct observation based on workplace procedures
	1.8 Identified histochemical methods based on the material available
	1.9 Identified chemical methods based on the material
	available
	1.10 Identified physical methods based on the material
	available
	1.11 Identified Staining methods as per workplace
	1.11 Renance Stamming methods as per workplace

		procedures
		1.12 Identified immunohistochemical methods based on
		the material available
		1.13 Performed X-ray diffraction as per the workplace
		procedures
		1.14 Outlined tissue location as per the workplace
		procedures
		1.15 Identified embryonic tissues as per the tissue location
		1.16 Classified tissues as per the tissue location
2.	Resource	The following resources must be provided:
	Implications	2.1 Functional Pharmaceutical technology system
3.	Methods of	Competency may be assessed through:
	Assessment	
		3.1 Written tests
		3.2 Third party reports
		3.3 Oral questioning
		3.4 Interview
		3.5 Observation
4.	Context of	Assessment could be conducted:
	Assessment	• On-the-job
		• Off-the-job
		<ul> <li>During industrial attachment</li> </ul>
5.	Guidance	Holistic assessment with related units in the sector
5.	information for	Tonste assessment with related units in the sector
	assessment	
	abbobbillont	

# **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.

ELEMENT	PERFORMANCE CRITERIA
These describe the <b>k</b> outcomes which ma up workplace function.	<b>ey</b> These are <b>assessable</b> statements which specify the required
1. Demonstrate the knowledge of physiologic principles	<ul> <li>1.1 The structure of the normal cell analyzed as per the cellular inclusions</li> <li>1.2 Functions of <i>cellular organelles</i> identified as per the structure</li> <li>1.3 Types of cell division described as per the cell type</li> <li>1.4 Types of mammalian cells identified as per the cell type</li> <li>1.5 The organization, size and composition of body fluids identified as per the site, composition and organization of the fluid.</li> <li>1.6 <i>Units of measurement</i> of the physiochemical constituent in cells identified as per the concentration</li> <li>1.7 <i>Forces producing movement</i> of substances between body fluid compartments identified as per the cell type</li> <li>1.8 Maintenance and variations in membrane potentials analyzed as per the cell type</li> <li>1.9 The buffering system of the body outlined as per the cell type</li> </ul>
2. Demonstrate the knowledge of the human body systems	

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

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	Mitochondria
	Endoplasmic reticulum
	• Nuclei
	• Cell membrane
	• Cytoplasm
2. Units of measurement	Moles
	• Equivalents
	Osmoles
3. Forces producing	• Diffusion
movement	Donnan effect
	• Solvent drag
	Osmosis
	• Filtration
	Active transport
	• Exocytosis
	• Endocytosis
4. Components of the	Cardiovascular system
human body systems	Respiratory system
	Renal system
	Musculoskeletal system
	Reproductive system
	• Skin
	Gastro intestinal
	• Central nervous system

5. Components of the	• Skin
integumentary	• Hair
systems	Nails
	• Exocrine glands

## **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**

1. Critical Aspects	Assessment requires evidence that the candidate:
of Competency	<ul> <li>1.1 Analyzed the structure of the normal cell as per the cellular inclusions</li> <li>1.2 Identified functions of cellular organelles as per the structure</li> <li>1.3 Described types of cell division as per the cell type</li> <li>1.4 Identified types of mammalian cells as per the cell type</li> <li>1.5 Identified the organization, size and composition of body</li> </ul>



		fluids as per the site, composition and organization of the
		fluid.
		1.6 Identified units of measurement of the physiochemical
		constituent in cells as per the concentration
		1.7 Identified forces producing movement of substances
		between body fluid compartments as per the cell type
		1.8 Analyzed maintenance and variations in membrane potentials as per the cell type
		1.9 Outlined the buffering system of the body as per the cell
		type 1.10 Identified the components of the human body
		systems as per the workplace procedures
		1.11 Identified relevant functions of the body s systems as
		per the workplace procedures
		1.12 Applied relevant principles of the body s systems to
		performance of therapy treatment as per the workplace
		procedures
		1.13 Identified the components of the integumentary
		systems as per the workplace procedures
		1.14 Identified functions of the integumentary systems as
		per the components
		1.15 Applied principles of the integumentary as per the
		workplace procedures
2.	Resource	The following resources must be provided:
	Implications	2.1 Functional Pharmaceutical technology system
3.	Methods of	Competency may be assessed through:
5.	Assessment	
		3.1 Written tests
		3.2 Third party reports
		3.3 Oral questioning
		3.4 Interview
4		3.5 Observation
4.	Context of	Assessment could be conducted:
	Assessment	• On-the-job
		• Off-the–job
		• During industrial attachment
5.	Guidance	Holistic assessment with related units in the sector
	information for	
	assessment	
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# **DEMONSTRATE KNOWLEDGE OF FOOD MICROBIOLOGY TECHNIQUES UNIT CODE:** MED/OS/PM/CC/03/6/A

# UNIT DESCRIPTION

This unit specifies the competencies required to apply microbiological techniques. It involves demonstrating the knowledge of microorganisms in foods and food environments, physiology, genetics, biochemistry and behaviour of microorganisms, microbiology of food fermentation, microbiological aspects of food safety, methods of detection, identification and enumeration of food microorganisms.

ELEMENT	PERFORMANCE CRITERIA
These describe the <b>key</b> outcomes which make up workplace function.	These are <b>assessable</b> statements which specify the required level of performance for each of the elements. Bold and italicized terms are elaborated in the Range
<ol> <li>Demonstrate the knowledge of microorganisms in food and food environment</li> </ol>	<ol> <li>1. 1 Terminologies in in food microbiology are identified and described as per resource materials</li> <li>1. 2Basic types of food microorganism are identified and described as per resource materials</li> <li>1. 3Roles of microorganisms in food safety and spoilage are identified and described as per resource materials</li> <li>1. 4 Use of microscope are applied as per workplace guidelines</li> </ol>
2. Demonstrate the knowledge of physiology, genetics, biochemistry and behaviour of food microorganisms	<ul> <li>2.1 Physiology, genetics and biochemistry of microorganisms are identified and described as per resource materials</li> <li>2.2 Bacterial anatomy is described as per resource materials</li> <li>2.3 Factors that influence growth and activity of food microorganism are identified and described as per resource materials</li> <li>2.4 The growth pattern of a typical bacterial colony is described as per resource materials</li> <li>2.5 The gram stain method and AFB test are demonstrated and described as per resource materials</li> </ul>

3.	Demonstrate the	3.1 Terminologies in food fermentation and its importance
	knowledge on	are identified and described as per resource materials
	microbiology of	3.2 Microorganisms in fermentation process are identified
	food fermentation	and described as per resource materials
		3.3 Fermentation processes in different types of food are
		identified and described as per resource materials
4.	Demonstrate the	4.1 Terminologies in microbial aspects in food safety are
	knowledge of	identified and described as per resource materials
	microbiological	4.2 Microbial aspects of food safety during production,
	aspects of food	processing and labelling, food handling distribution and
	safety	storage, food preparation and use are identified and
		described as per resource materials
5.	Demonstrate the	5.1 Terminologies in basic laboratory equipment and
	knowledge on	materials are identified and described as per resource
	methods of	materials
	detection,	5.2 Methods of detection, identification and enumeration of
	identification and	microorganisms are identified and described as per
	enumeration of food	resource materials
	microorganism	

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. Types of immunity	• Innate
	Adaptive

# **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 microbiology in pharmacy and related biomedical sciences
- The nature and appropriate environmental conditions for survival of microorganisms
- Diseases and physiological disorders associated with microorganisms
- Appropriate treatment and management of the various diseases caused by micro organisms
- Various laboratory tests in the diagnosis of diseases

# **EVIDENCE GUIDE**

1. Critical aspects	The assessment requires evidence that the candidate:
	1. Demonstrated the knowledge of microorganisms in food and food environment
	2. Demonstrated the knowledge of physiology, genetics, biochemistry and behaviour of food microorganisms
	3. Demonstrated the knowledge on microbiology of food fermentation
	4. Demonstrated the knowledge of microbiological aspects of food safety
	5. Demonstrated the knowledge on methods of detection, identification and enumeration of food microorganism
2. Resource	The following resources must be provided:
Implications	

	2.1 Functional Pharmaceutical technology system
3. Methods of	Competency may be assessed through:
Assessment	3.1 Written tests
	3.2 Third party reports
	3.3 Oral questioning
	3.4 Interview
	3.5 Observation
4. Context of	Assessment could be conducted:
Assessment	• On-the-job
	• Off-the–job
	During industrial attachment
5. Guidance	Holistic assessment with related units in the sector
information	for
assessment	

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# FOOD PROCESSING, SAFETY AND HYGIENE

UNIT CODE: MED/CU/NUD/CC/04/6/A

## **Unit Description**

This unit specifies the competencies required for food processing, safety and hygiene. It is to include principles in food processing, methods of food preservation, food quality and safety-HACCP and hygiene practices in food handling.

ELEMENT	PERFORMANCE CRITERIA
These describe the <b>key</b> <b>outcomes</b> which make up <b>workplace function</b> .	These are <b>assessable</b> statements which specify the required level of performance for each of the elements. <i>Bold and italicized terms are elaborated in the Range</i>
<ol> <li>Identify and describe terminologies in food processing, safety and hygiene</li> </ol>	<ol> <li>1. 1Terminologies in food processing, preservation and food safety are identified and described as per resource materials</li> <li>1. 2Aims and importance of food processing, preservation and safety are identified and described as per resource materials</li> </ol>
2. Describe principles in food processing, preservation and safety	<ul> <li>2.1 Principles in food are identified and described as per resource materials</li> <li>2.2 Methods of food processing and preservation are identified and described as per resource materials</li> <li>2.3 Effects of food processing and preservation techniques on food storage sensory and nutrition properties of food are identified and described as per resource materials</li> <li>2.4 Traditional and modern methods in food processing and preservation for different food categories are identified and described as per resource materials</li> </ul>
3. Demonstrate knowledge in food quality, safety and hygiene	<ul> <li>4.1 Quality control of food and food safety during processing are identified and described as per resource materials</li> <li>4.2 HACCP is described and demonstrated as per resource materials, organizational guidelines, policies and guidelines</li> <li>4.3 Food hygiene are identified and described as per resource materials</li> </ul>

# Learning Outcomes, Content and Suggested Assessment Methods

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.

Variable	Range
1. OSH-related Records	Medical/Health records
may include but not	Incident/accident reports
limited to:	Sickness notifications/sick leave application
	OSH-related trainings obtained

# **REQUIRED SKILLS AND KNOWLEDGE**

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

## **Required Skills**

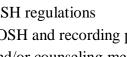
The individual needs to demonstrate the following skills:

- Communication
- Interpersonal
- Presentation
- Risk assessment
- Evaluation
- Critical thinking
- Problem solving
- Negotiation

## **Required Knowledge**

The individual needs to demonstrate knowledge of:

- General OSH Principles
- Occupational hazards/risks recognition
- OSH organizations providing services on OSH evaluation and/or work environment measurements (WEM)
- National OSH regulations; company OSH policies and protocols
- Systematic gathering of OSH issues and concerns
- General OSH principles
- National OSH regulations
- Company OSH and recording protocols, procedures and policies/guidelines
- Training and/or counseling methodologies and strategies





# **EVIDENCE GUIDE**

1.	Critical	Assessment requires evidence that the candidate:
	Aspects of	Demonstrated the ability to identify and describe terminologies
	Competency	in food processing, safety and hygiene
	competency	Demonstrated the ability to describe principles in food
		processing, preservation and safety
		Demonstrated knowledge in food quality, safety and hygiene
		D'entonstrated into a leage in 1000 quanty, surety and hygiene
2.	Resource	The following resources should be provided:
	Implications	2.1 Access to relevant workplace where assessment can take
		place
		2.2 Appropriately simulated environment where assessment
		can take place
3.	Methods of	Competency in this unit may be assessed through:
	Assessment	3.1 Observation
		3.2 Oral questioning
		3.3 Written test
		3.4 Portfolio of Evidence
		3.5 Interview
		3.6 Third party report
4.	Context of	Competency may be assessed:
	Assessment	4.1 On-the-job
		4.2 Off-the –job
		4.3 During Industrial attachment
5.	Guidance	Holistic assessment with other units relevant to the industry
	information	sector, workplace and job role is recommended.
	for	
	assessment	

# APPLY NUTRITION BIOCHEMICAL TECHNIQUES

UNIT CODE: MED/OS/PM/CC/05/6/A

#### **UNIT DESCRIPTION**

This unit specifies the competencies required to apply biochemical techniques. It involves demonstrating the knowledge of macromolecules and their metabolism, enzymes, molecular genetics and biochemistry of macronutrients

ELEMENT	PERFORMANCE CRITERIA
These describe the <b>key</b> outcomes which make up workplace function.	These are <b>assessable</b> statements which specify the required level of performance for each of the elements. Bold and italicized terms are elaborated in the Range
1. Demonstrate the knowledge of macromolecules and their metabolism	<ul> <li>1.1 <i>Types of macro molecules</i> identified as per the workplace procedures</li> <li>1.2 The hierarchy of molecular organization of cells is illustrated as per the workplace procedures</li> <li>1.3 The structure of the cell and how it is organized to conduct its characteristic chemical functions is outlined based on workplace procedures</li> </ul>
2. Demonstrate the knowledge of enzymes and hormones	<ul> <li>2.1 The structure of enzymes outlined as per the workplace procedures</li> <li>2.2 The relationship among holoenzymes, apoenzymes and cofactors outlined as per the workplace procedures</li> <li>2.3 The general mechanisms by which enzymes catalyze reactions outlined as per the type of macro molecule</li> <li>2.4 Enzymes classified as per the <i>I.B.U.N</i></li> <li>2.5 Properties of enzymes identified as per the workplace procedures</li> <li>2.6 Isoenzymes and zymogens discussed based on workplace procedures</li> <li>2.7 Enzymes related to their chemical applications based on workplace procedures</li> <li>2.8 Functions of hormones, their secretion modes and endocrine disorders are identified and described as per resource materials</li> </ul>

3.	Demonstrate the	3.1 Nucleic acids identified and classified as per the
	knowledge of	workplace procedures
	molecular genetics	3.2 Heterocyclic bases present in nucleic acid identified as
		per the molecular structure
		3.3 Pentose sugars in nucleic acid identified as per the molecular structure
		3.4 Structures and functions of DNA and RNA are described as per resource materials
		3.5 The process of DNA replication described as per workplace procedures
		3.6 The process of DNA transcription described workplace procedures
		<ul><li>3.7 Protein synthesis process described on workplace procedures</li></ul>
		3.8 Point mutation described on workplace procedures
		3.9 Chromosomes and chromosome pathology outlined on
		workplace procedures
4.	Demonstrate the	4.1 Terminologies in biochemistry of macronutrients are
	knowledge of	identified and described as per resource materials
	biochemistry of	4.2 Biochemistry of carbohydrates is described as per
	macronutrient	resource materials
		4.3 Biochemistry of proteins is described as per resource materials
		4.4 Biochemistry of lipids is described as per resource materials

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. I.B.U.N	International union of biochemistry nomenclature
2. Types of macro	Carbohydrates
molecules	Proteins
	• Lipids

# **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 basic structure of a living cell and its organization
- The structural elements of carbohydrates, proteins, lipids and their interactions with other small molecules
- The nature of enzymes
- The process of enzyme catalysis
- Biochemical reactions which micro and macro molecules undergo to maintain homeostasis, growth and maturation
- The structural elements of chromosomes and their functions

# **EVIDENCE GUIDE**

1. Critical Aspects	Assessment requires evidence that the candidate:
of Competency	<ul> <li>1.1 Identified types of macro molecules as per the workplace procedures</li> <li>1.2 Illustrated the hierarchy of molecular organization of cells is as per the workplace procedures</li> <li>1.3 Outlined the structure of the cell and how it is organized to conduct its characteristic chemical functions based on workplace procedures</li> <li>1.4 Outlined the structure of enzymes as per the workplace</li> </ul>

	procedures
	1.5 Outlined the relationship among holoenzymes,
	apoenzymes and cofactors as per the workplace procedures
	1.6 Outlined the general mechanisms by which enzymes
	catalyze reactions as per the type of macro molecule
	1.7 Classified enzymes as per the I.B.U.N
	1.8 Identified properties of enzymes as per the workplace procedures
	1.9 Discussed isoenzymes and zymogens based on
	workplace procedures
	1.10 Related enzymes to their chemical applications based
	on workplace procedures
	1.11 Identified and classified nucleic acids as per the
	workplace procedures
	1.12 Identified heterocyclic bases present in nucleic acid as per the molecular structure
	1.13 Identified pentose sugars in nucleic acid as per the
	molecular structure
	1.14 Described the process of DNA replication as per
	workplace procedures
	1.15 Described the process of DNA transcription
	workplace procedures
	1.16 Described protein synthesis process on workplace procedures
	1.17 Described point mutation on workplace procedures
	1.18 Outlined chromosomes and chromosome pathology
	on workplace procedures
	1.19 Described the relationship between natural laws and
	common physical phenomena as per the principles of
	physical chemistry
	1.20 Applied physical principles of pharmaceutical
	procedures as per workplace procedures
	1.21 Identified the role of physical principles in the
	dynamic process in the human body based on workplace
2 D	procedures
2. Resource	The following resources must be provided:
Implications	2.1 Functional Pharmaceutical technology system
3. Methods of	Competency may be assessed through:
Assessment	
L	l

		3.1 Written tests
		3.2 Third party reports
		3.3 Oral questioning
		3.4 Interview
		3.5 Observation
4.	Context of	Assessment could be conducted:
	Assessment	4.1 On-the-job
		4.2 Off-the–job
		4.3 During industrial attachment
5.	Guidance	Holistic assessment with related units in the sector
	information for	
	assessment	

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#### CONDUCT RESEARCH METHODS AND STATISTICS UNIT CODE: MED/OS/NUD/CC/06/6/A

# UNIT DESCRIPTION

This unit specifies the competencies required to conduct research in nutrition pharmacy. It involves proposal writing: identifying a research problem upon literature review, formulating objectives, hypothesis and or research questions, conducting literature review, developing research methodology, conducting data collection, conducting data analysis and presentation and preparing research report. Statistical methods: types of data, descriptive statistics, inferential statistics, confidence intervals

ELEMENT	PERFORMANCE CRITERIA
These describe the <b>key</b> <b>outcomes</b> which make up <b>workplace</b> <b>function</b> .	These are <b>assessable</b> statements which specify the required level of performance for each of the elements. Bold and italicized terms are elaborated in the Range
1. Identify terminologies in research methods and statistics	<ol> <li>1. 1Terminologies in research methods and statistics are identified and described as per resource materials</li> <li>1. 2 Importance of research, Types of research, Sources of data for research are identified and described as per resource materials</li> <li>1. 3 Statistical methods are identified and described as per resource materials</li> </ol>
2. Develop a research proposal	<ul> <li>2.1 Identification of research problem/title is done as per literature search</li> <li>2.2 Components of research proposal are identified and described as per resource materials and organizational guidelines</li> </ul>
3. Conduct data collection	3.1 Data is collected as per the proposal developed and organizational guidelines
4. Conduct data analysis and presentation	<ul> <li>4.1 Data is analyzed as per statistical method outlined in the proposal and organizational guidelines</li> <li>4.2 Research findings are presented as per proposal and resource materials</li> </ul>
5. Preparation of reports and dissemination	5.1 Scientific writing of research document is done as per the resource materials and organizational guidelines

5.2 Power point presentations are done as per resource
materials organizational guidelines, peer review of the
research and publications are done as per journal
guidelines

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
1. Sources of information	• Primary
	• Secondary
2. Types of research	• Descriptive
design	• Experimental
	• Case study
	• Correlational
3. Sampling techniques	Probability
	Non-probability
4. Data analysis	Hypothesis test
techniques	<b>v</b>
5. Sources of data	• Primary
	• Secondary
6. Methods of data	• Questionnaire
collection	• Interviewing
	Observation

# **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
- Presentation skills

## **Required Knowledge**

The individual needs to demonstrate knowledge of:

- Research methods
- Technical report writing
- Communication skills
- Presentation skills

## **EVIDENCE GUIDE**

1.	Critical Aspects	Assessment requires evidence that the candidate:
	of Competency	1. 1Identified Research problem as per requirements of industry
		1. 2 Defined the scope of the study as per the research problem
		1. 3 Formulated a research title-based objective.
		1. 4 Identified Research objectives based on the title.
		1. 5 Established Research questions based on the objectives.
		1. 6 Identified Sources of information based on research objectives.
		1. 7 Reviewed and cited Relevant information is based on area of study
		1. 8Identified the locality/site of the study based on the research objective.
		1. 9Identified Materials, methods and procedures based on the research problem.
		1. 10 Prepared a schedule of the study based on timeframe of the study.
		1. 11 Prepared Research budget based on the scope of the
		·

		<ul> <li>research</li> <li>1. 12 Identified and selected Types of research design are based on the research objectives.</li> <li>1. 13 Data analysis techniques are selected and established research objective and research design.</li> <li>1. 14 Determined Validity and reliability of research instruments is as per the research design.</li> <li>1. 15 Developed a research proposal</li> <li>1. 16 Determined Tesearch design</li> <li>1. 17 Determined Data Collection Methods and data analysis Procedures</li> <li>1. 18 Identified Data collection tools based on the research design</li> <li>1. 19 Collected Data is in line with research objectives.</li> <li>1. 20 Analyzed and interpreted Data as per relevant methodology</li> <li>1. 22 Identified Research report format as per relevant standards</li> <li>1. 23 Prepared Research report as per standards</li> </ul>
		1. 24 Determined and presented Research findings as per
		work place procedures
2.	Resource implications	The following resources must be provided: 2.1 Functional bee facilities
3.	Methods of	Competency may be assessed through:
	Assessment	3.1 Written tests
		3.2 Third party reports
		3.3 Oral questioning
		3.4 Interview
4	Constant f	3.5 Observation
4.	Context of	Assessment could be conducted:
	Assessment	• On-the-job
		• Off-the–job
		During industrial attachment
5.	Guidance information for assessment	Holistic assessment with related units in the sector

# CORE UNITS OF COMPETENCY

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## APPLY NUTRITION IN EMERGENCY

#### UNIT CODE MED/OS/NUD/CR/01/6/A

#### **UNIT DESCRIPTION**

This unit specifies the competencies required to apply nutrition in emergency .it involves conducting rapid assessment on the nutrition situation, selecting food and nutrition emergency responses and plan, providing nutrition and health interventions and monitoring implementation of interventions.

ELEMENT	PERFORMANCE CRITERIA
These describe the key	These are <b>assessable</b> statements which specify the
outcomes which make up	required level of performance for each of the elements.
workplace function.	Bold and italicized terms are elaborated in the range.
1. Conduct rapid	1.1 Anthropometric assessment is carried out as per
assessment on the	work place procedures
nutrition situation	1.2 Physical and Clinical assessment is carried out as
	per work place procedures
	1.3 Nutrition condition is documented as per work
	place procedures
2. Select food and	2.1 Nutrition status is determined as per client
nutrition	nutrition history
emergency	2.2 Therapeutic feeding program is designed as per
responses and plan	type of feeding
	2.3 Heath status of clients are determined as per work
	place procedures
3. Provide nutrition	3.1 Nutrition health education as per patient nutrition
and health	needs
interventions	3.2 Provision of therapeutic feeds as per work place
	procedures
	3.3 Medical/nutrition underlying causes are checked
	as per patient nutrition needs
4. Monitor	4.1 Outcomes of nutrition related diet history are
implementation of	evaluated as per client nutrition needs
interventions	4.2 <i>Anthropometric measurement</i> outcomes are
	assessed as per clients requirement
	4.3 Physical and clinical outcomes are evaluated as
	per nutrition diagnosis
	r

	4.4 Outcome of therapeutic feeds is assed as per work place procedures
5. Document nutritional intervention during emergencies	<ul><li>5.1 MOH registers are obtained as per work place procedures</li><li>5.2 WFP registers are obtained as per work place procedures</li></ul>

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

Variable	Range
1. Anthropometric	Weighing scales
measurement	Measuring tapes
	• Charts
	Height board

# **REQUIRED KNOWLEDGE AND UNDERSTANDING**

The individual needs to demonstrate knowledge of:

# Knowledge

Anatomy and physiology WHO guidelines

WFP guidelines

Macro and micro nutrients

# SKILLS

The individual needs to demonstrate the following skills:

- ICT
- Communication
- Information technology
- Analysis
- Synthesis and evaluation
- Decision making
- Management
- Leadership

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# **EVIDENCE GUIDE**

1. Critical Aspects	of Assessment requires evidence that the candidate:
Competency	Demonstrates;
	1.1 Ability to conduct rapid assessment on the nutrition
	situation
	1.2 Ability to select food and nutrition emergency
	responses and plan
	1.3 Ability to provide nutrition and health interventions
	1.4 Ability to monitor implementation of interventions
	1.5 Ability to document nutritional intervention during
	emergencies
2. Resource	The following resources must be provided:
Implications	2. 1Nutrition books
	$\mathbf{A}$
3. Methods of	Competency may be accessed through:
Assessment	3.1 Written tests
	3.2 Oral questioning
	3.3 Third party reports
	3.4 Case studies
4. Context of	Competency may be assessed:
Assessment	4.1 On the job
	4.2 Off the job
	4.3 In work placement (attachment)
	4.4 Off the job assessment must be undertaken in a
	closely simulated workplace environment
5. Guidance	Holistic assessment with other units relevant to the
information for	industry subsector, workplace and job roles is
assessment	recommended.

### MANAGE NUTRITION IN THE LIFE CYCLE

#### UNIT CODE MED/OS/NUD/CR/02/6/A

#### **UNIT DESCRIPTION**

This unit specifies the competencies required to manage nutrition in the life cycle. It involves identifying terminologies in nutrition in the life cycle, demonstrating the knowledge of nutrition during pre-pregnancy, Pregnancy, Lactation, Infancy (0-24 months), preschoolers (25-59 months), pre-adolescents (6years-12 years), Adolescents (13years-19 years), adults (20years-60 years) and older persons/geriatric nutrition (60years and above).

ELEMENT	PERFORMANCE CRITERIA
These describe the <b>key</b>	These are <b>assessable</b> statements which specify the
outcomes which make up	required level of performance for each of the elements.
workplace function.	Bold and italicized terms are elaborated in the range.
1. Identify terminologies	1.1 Terminologies in the lifecycle are identified as per
in nutrition in the life	the existing nutrition policies and guidelines
cycle	1.2 <i>Stages in the life cycle</i> are identified and described as
	per the existing policies and guidelines
	1.3 The Important roles of nutrition is identified and
	described as per the different life stages
	1.4 Nutrition vulnerability and risks are identified and
	described as per the different life stages
	1.5 The factors that determine nutrition needs are
	identified as per different life stages
2. Demonstrate	2.1 Nutrition needs of men and women before conception
knowledge in	are identified and described as per resource materials
nutrition during pre-	2.2 Importance of pre-conception nutrition knowledge
pregnancy	and services are identified and described as per the
	resource materials and existing guidelines
	2.3 The risk factors with nutrition implications are
	identified and described as per resource materials
	2.4 Nutrition needs during preconception are identified
	as per the RDAs for macro and micronutrients

2	Dama a stract -	2.1 Terminalazian duning and survey and it.
5.	Demonstrate	3.1 Terminologies during pregnancy are identified as per
	knowledge in	the existing policies and guideline
	nutrition during	3.2 The stages of pregnancy are identified and their
	Pregnancy	nutrition implications described as per existing
		resource materials
		3.3 Complications during each stage of pregnancy are
		identified and described as per resource materials and
		guidelines
		3.4 Nutrition needs during pregnancy are identified and
		described as per the RDAs for macro and
		micronutrients
		3.5 Prenatal care services and other interventions for
		pregnant women are identified and described as per
		WHO/UNICEF policies and guidelines
4.	Demonstrate	4.1 Terminologies during lactation are identified as per
	knowledge in	the existing policies and guideline
	nutrition during	4.2 Postnatal care services and other interventions for
	Lactation	lactating women are identified and described as per
		WHO/UNICEF policies and guidelines
		4.3 Breast feeding indicators and strategies are identified
		and described as per WHO/UNICEF policies and
		guidelines
		4.4 Nutrition needs during lactation are identified and
		described as per the RDAs for macro and
		micronutrients
5.	Demonstrate	5.1 Nutrition related terminologies in infancy are
	knowledge in	identified as per the existing policies and guideline
	nutrition during	5.2 <i>Nutrition requirements</i> for infants 0-6 months/breast
	Infancy (0-24 months)	feeding indicators are described as per MOH,
		WHO/UNICEF policies and guidelines
		5.3 Breast feeding in vulnerable situations and in the
		context of HIV and AIDS are describes as per MOH,
		WHO/UNICEF policies and guidelines
		5.4 Initiatives to promote good breast-feeding practices
		are identified and described as per MOH,
		WHO/UNICEF policies and guidelines
L		I

	<ul> <li>5.5 Nutrition requirements and need of infants 0-6 months are identified and described as per MOH, WHO/UNICEF policies and guidelines</li> <li>5.6 Nutrition requirements and feeding of infants 9 months to 11 months are described as per MOH, WHO/UNICEF policies and guidelines</li> <li>5.7 Nutrition requirements and feeding of infants 12 months to 24 months are described as per MOH, WHO/UNICEF policies and guidelines</li> </ul>
6. Demonstrate knowledge in nutrition for preschoolers (25-59 months)	<ul> <li>6.1 Nutrition related terminologies for preschoolers are identified as per the existing policies and guideline</li> <li>6.2 Developmental milestones for preschoolers are described as per resource materials</li> <li>6.3 Nutrition vulnerability for preschoolers are identified and described as per resource materials</li> <li>6.4 Nutrition requirements for pre-school children are identified and described as per RDAs for macro and micronutrients, policies and guidelines</li> </ul>
<ul> <li>7. Demonstrate knowledge in nutrition for pre- adolescents (6years- 12 years)</li> </ul>	<ul> <li>7.1 Nutrition related terminologies for pre-adolescents are identified as per the existing policies and guideline</li> <li>7.2 Developmental milestones are described as per resource materials</li> <li>7.3 Nutrition vulnerabilities for pre-adolescents are identified and described as per resource materials</li> <li>7.4 Nutrition requirements for pre-adolescents are identified and described as per RDAs for macro and micronutrients, policies and guidelines</li> </ul>
<ul> <li>8. Demonstrate knowledge in nutrition for adolescents (13years- 19 years)</li> </ul>	<ul> <li>8.1 Nutrition related terminologies for adolescents are identified as per the existing policies and guideline</li> <li>8.2 Developmental changes in adolescence are described as per resource materials</li> <li>8.3 Nutrition vulnerabilities for adolescents are identified and described as per resource materials</li> <li>8.4 Nutrition requirements for adolescents are identified and described as per RDAs for macro and micronutrients, policies and guidelines</li> <li>8.5 Factors influencing dietary practices and food choices are identified and described as per resource materials</li> </ul>

9. Demonstrate	9.1 Nutrition related terminologies in adulthood are
knowledge in	identified as per the existing policies and guideline
nutrition for adults	9.2 Nutrition vulnerabilities and habits with nutrition
(20years-60 years)	implication are identified and described as per
	categories of adulthood
	9.3 Nutrition requirements for early adulthood (20-40
	years) are described as per RDAs for macro and
	micronutrients, policies and guidelines
	9.4 Nutrition requirements for mid adulthood (40 years-60
	years) are described as per RDAs for macro and
	micronutrients, policies and guidelines
10. Demonstrate	10.1 Nutrition related terminologies for older persons
knowledge in	are identified as per the existing policies and
nutrition for older	guideline
persons/geriatric	10.2 Nutrition assessment for the older persons are
nutrition (60years and	identified, described and demonstrated as per
above)	resource materials
	10.3 Physiological, psychosocial and economic
	changes for older persons are described as per resource
	materials
	10.4 Meal planning for the older person is described
	and demonstrated as per resource materials
	10.5 Nutrition requirements for the older persons are
	identified and described as per RDAs for macro and
	micronutrients, policies and guidelines
	10.6 Nutrient drug interactions for the older persons are
	identified and described as per resource materials
	10.7 Interventions for the older persons in Kenya are
	identified and described as per existing policies

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

Variable	Range
1. Stages in the life	• Pre-pregnancy
cycle	• Pregnancy
	Lactation

2. Stages of pregnancy	<ul> <li>Infancy</li> <li>Pre-school age</li> <li>Pre-adolescents</li> <li>Adolescents</li> <li>Adulthood/early adulthood/mid adulthood/late adulthood or older persons</li> <li>Implantation/first trimester</li> <li>Cellular differentiation/second trimester</li> </ul>
	<ul> <li>Growth/third trimester</li> </ul>
3. Nutrition requirements	<ul> <li>Calories</li> <li>Carbohydrates</li> <li>Proteins</li> <li>Fats</li> <li>Vitamins</li> <li>Minerals</li> <li>Water</li> </ul>

# **REQUIRED KNOWLEDGE AND UNDERSTANDING**

The individual needs to demonstrate knowledge of: 6,0

#### Knowledge

- Anatomy and physiology
- WHO guidelines
- WFP guidelines
- Macro and micro nutrients

#### SKILLS

The individual needs to demonstrate the following skills:

- ICT
- Communication
- Information technology
- Analysis
- Synthesis and evaluation
- Decision making
- Management
- Leadership

# **EVIDENCE GUIDE**

1. Critical Aspects of	Assessment requires evidence that the candidate:
Competency	1.1 Identified terminologies in nutrition in the life cycle
	1.2 Demonstrated knowledge of nutrition during pre-
	pregnancy
	1.3 Demonstrated knowledge of nutrition during
	Pregnancy
	1.4 Demonstrated knowledge of nutrition during
	Lactation
	1.5 Demonstrated knowledge of nutrition during
	infancy(0-24 months)
	1.6 Demonstrated knowledge of nutrition for
	preschoolers (25-59 months)
	1.7 Demonstrate knowledge of nutrition for pre-
	adolescents (6years-12 years)
	1.8 Demonstrate knowledge of nutrition for adolescents
	(13years-19 years)
	1.9 Demonstrated knowledge of nutrition for adults
	(20years-60 years)
	1.10 Demonstrated knowledge of nutrition for older
	persons/geriatric nutrition (60years and above)
2. Resource	The following resources must be provided:
Implications	2. 1Nutrition books
	2. 2Food models
	2. 3Counselling cards
	2. 4Food lab
3. Methods of	Competency may be accessed through:
Assessment	3.1 Written tests
	3.2 Oral questioning
	3.3 Third party reports
	3.4 Case studies
4. Context of	Competency may be assessed:
Assessment	4.1 On the job
	4.2 Off the job
	4.3 In work placement (attachment)
	4.4 Off the job assessment must be undertaken in a
	closely simulated workplace environment

5. Guidance	Holistic assessment with other units relevant to the
information for	industry subsector, workplace and job roles is
assessment	recommended.

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# APPLY PRINCIPLES OF HUMAN NUTRITION

#### UNIT CODE: MED/OS/NUD/CR/03/6/A

#### **UNIT DESCRIPTION**

This unit specifies the competencies required to manage nutrition and dietetic services it includes: classifying different nutrients, demonstrate understanding of food metabolism, demonstrate understanding of the role of nutrition in disease occurrence and management, identifying factors that place client at nutritional risk and undertaking nutrition monitoring.

ELEMENT	PERFORMANCE CRITERIA
These describe the key	These are assessable statements which specify the
outcomes which make up	required level of performance for each of the elements.
workplace function.	Bold and italicized terms are elaborated in the range.
1. Classify different nutrients	<ul> <li>1.1 Determine nutrient needs as per client nutritional requirements</li> <li>1.2 Macro and micro nutrients are assessed as per nutritional composition</li> <li>1.3 Types of Macro and micro nutrients are categorized as per nutritional standard requirement</li> <li>1.4 Concepts and basic principles of nutrition and dietetics are determined as per nutritional standards</li> <li>1.5 Energy levels of different foods are determined as per client needs and standard nutritional</li> </ul>
	requirement
2. Demonstrate understanding of food metabolism	<ul> <li>2.1 Describe Digestion in the GIT</li> <li>2.2 Determine GIT sites of secretions and absorption</li> <li>2.3 Explain factors affecting digestion, absorption and utilization.</li> <li>2.4 Explain factors affecting bioavailability of macro and micro nutrients.</li> <li>2.5 Assess factors that hinder metabolism.</li> </ul>
3. Understand role of nutrition in disease occurrence and management	<ul> <li>3.1 Prevalence of nutrition implications in disease occurrence is assessed</li> <li>3.2 Client's nutrition assessment is evaluated as per standardized operating procedures</li> </ul>

	<ul><li>3.3 Dietary management in metabolic disorders and malnutrition is determined as per individual nutrition requirements</li><li>3.4 Nutritional support is explored as per client requirement</li></ul>
4. Identify factors that place client at nutritional risk	<ul> <li>4.1 Problems which may affect the client's ability to eat or drink are reported to the dietitian and/or other relevant health professional, according to organization policies and procedure</li> <li>4.2 Client food intake is documented and reported according to organization policies and procedures</li> <li>4.3 Feedback about changes to nutrition support requirements are provided to catering/food services</li> <li>4.4 Client is informed of the dietary recommendation as per dietary requirements</li> </ul>
5. Undertake nutrition monitoring	<ul> <li>5.1 The nutrition status of clients is identified as per standard/validated tools and nutritional indicators</li> <li>5.2 Systems designed by a dietitian are followed to monitor client nutritional status</li> <li>5.3 The progress of client nutritional status that is reported to the dietitian, and/or other health professional is evaluated according to standard protocols and timeframes</li> </ul>

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

Variable	Range
1. Nutrients	Carbohydrates
	• Proteins
	• Lipids
	• Vitamins
	Minerals
	• Water

# **REQUIRED KNOWLEDGE AND UNDERSTANDING**

The individual needs to demonstrate knowledge of:

# Knowledge

- Nutrition and disease
- Anatomy and physiology
- Food nutrient interaction.

# SKILLS

The individual needs to demonstrate the following skills:

- ICT
- Communication
- Information technology
- Analysis
- Synthesis and evaluation
- Decision making
- Management
- Leadership

# **EVIDENCE GUIDE**

1. Critical Aspects	Assessment requires evidence that the candidate:
of Competency	Demonstrates;
	1.1 Ability to assist client with meal selection
	1.2 Ability to prepare and deliver nutrition support services
	1.3 Ability to comply with personal hygiene standards
	1.4 Ability to support the client with acceptance of
	nutrition care plan
	1.5 Ability to identify factors that place client at
	nutritional risk
	1.6 Ability to undertake nutrition monitoring
2. Resource	The following resources must be provided:
Implications	2. 1Nutrition books
3. Methods of	Competency may be accessed through:
Assessment	3.1 Written tests
	3.2 Oral questioning
	3.3 Third party reports

	3.4 Case studies
4. Context of	Competency may be assessed:
Assessment	• On the job
	• Off the job
	• In work placement (attachment)
	Off the job assessment must be undertaken in a closely
	simulated workplace environment
5. Guidance	Holistic assessment with other units relevant to the
information for	industry subsector, workplace and job roles is
assessment	recommended.

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## **CONDUCT NUTRITION CARE PROCESS**

### UNIT CODE: MED/OS/NUD/CR/04/6/A UNIT DESCRIPTION

This unit specifies the competencies required to examine client nutrition status. It includes carrying out nutrition assessment, conduct nutrition diagnosis, conduct nutrition interventions, and conduct nutrition monitoring and conducting nutrition evaluation.

ELEMENT	PERFORMANCE CRITERIA
These describe the <b>key</b>	These are <b>assessable</b> statements which specify the
outcomes which make up	required level of performance for each of the
workplace function.	elements.
	Bold and italicized terms are elaborated in the
	range.
1. Carry out nutrition	1.1 Anthropometric measurements methods and
assessment	tools determined as per resource materials,
	user needs, policies and guidelines
	1.2 Biochemical assessments are identified,
	interpreted and evaluated as per resource
	materials, biological variations/biomarkers,
	user needs, policies and guidelines
	1.3 Clinical and physical assessments are
	identified and determined as per resource
	materials, user needs, indicators, policies and
	guidelines
	1.4 Dietary assessment is conducted as per
	resource materials, user needs, policies and guidelines
	1.5 Socio-economic assessment is done as per
	resource materials, user needs, policies and
	guidelines, patients file
	1.6 Functionality assessment is done as per
	resource materials, user needs, policies and
	guidelines, patients file
2. Conduct nutrition	2. 1Underlying medical condition of the client
diagnosis	are determined as per the patient's file
ulagilosis	2. 2Nutrition problems of the client are labeled
	and classified as per patients/client's history,
	file

	<ol> <li>2. 3 Etiology of conditions are identified and described as per resource material, patient history, policies and guidelines</li> <li>2. 4Signs and symptoms of the conditions are identified and described as per, physical observations, resource materials, patient file, policies and guidelines.</li> <li>2. 5Nutrition diagnosis is determined as per results of anthropometric measurements, biochemical, clinical signs and symptoms, dietary, socio-economic and functional assessments.</li> </ol>
3. Conduct prescriptions for nutrition interventions	<ul> <li>3.1 Nutrition needs are prioritized and addressed as per the nutrition diagnosis</li> <li>3.2 Appropriate nutrition interventions are identified and selected as per clients/patients nutrition needs, resource materials, policies and</li> <li>3.3 Diet plans are designed as per clients/patients nutrition needs, policies and guidelines.</li> <li>3.4 Designed care plans are implemented as per intervention plans, resource materials, policies and guidelines</li> </ul>
<ol> <li>Conduct monitoring dietary assessment</li> </ol>	<ul> <li>4.1 Daily monitoring of the patients uptake and response to the interventions done as per intervention plan, resource materials, policies and guidelines</li> <li>4.2 Nutrition prescriptions and documentation are done as per intervention plan, resource materials, policies and guidelines</li> </ul>
5. Conduct evaluation for the entire nutrition care process	<ul> <li>5.1 Outcomes of the entire nutrition care process are assessed as per plans, patients response, user needs, resource materials, policies and guidelines</li> <li>5.2 Appropriate decisions are made and documented as per plans, patients response, user needs, resource materials, policies and guidelines</li> </ul>

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

Variable	Range
1. Errors	Systematic
	• Random
2. Dietary	• Direct
assessment	• Indirect
method	

# **REQUIRED KNOWLEDGE AND UNDERSTANDING**

The individual needs to demonstrate knowledge of: , thet. com

### Knowledge

- Anthropometric tools
- Anatomy and physiology
- Biochemical analysis
- Food, nutrients and diseases
- •

# **SKILLS**

The individual needs to demonstrate the following skills:

- ICT
- Communication
- Information technology
- Analysis
- Synthesis and evaluation
- Decision making
- Management
- Leadership •
- Interpretation
- Numeracy
- •

# **EVIDENCE GUIDE**

1.	Critical Aspects	Assessment requires evidence that the candidate:
	of Competency	1.1 Carried out nutrition assessment
		1.2 Conducted nutrition diagnosis
		1.3 Conducted prescriptions for nutrition interventions
		1.4 Conducted monitoring dietary assessment
		1.5 Conducted evaluation for the entire nutrition care
		process
2.	Resource	The following resources must be provided:
	Implications	2. 1PPES
		2. 2Assessment location
		2. 3Fully equipped laboratory
		2. 4Nutrition equipment's
3.	Methods of	Competency may be accessed through:
	Assessment	3.1 Written tests
		3.2 Oral questioning
		3.3 Third party reports
		3.4 Case studies
4.	Context of	Competency may be assessed:
	Assessment	4.1 On the job
		4.2 Off the job
		4.3 In work placement (attachment)
		4.4 Off the job assessment must be undertaken in a
		closely simulated workplace environment
5.	Guidance	Holistic assessment with other units relevant to the
	information for	industry subsector, workplace and job roles is
	assessment	recommended.

### PLAN AND MANAGE MEALS

#### UNIT CODE: MED/OS/NUD/CR/05/6/A

#### **UNIT DESCRIPTION**

This unit specifies the competencies required to plan and manage meals. It includes: determining client nutritional needs, assisting client with meal selection, formulating diet recipes and menu, preparing formulated meals, assessing food safety and hygiene and documenting meal planning and management.

ELEMENT	PERFORMANCE CRITERIA
These describe the key	These are assessable statements which specify the
outcomes which make up	required level of performance for each of the elements.
workplace function.	Bold and italicized terms are elaborated in the range.
1. Determine client	1.1 client diet history is obtained as per work place
nutritional needs	procedures
	1.2 client medical history is obtained as per work
	place procedure
	1.3 client biochemical analysis is carried out as per
	work place procedures
	1.4 client clinical assessment is carried out as per
	client medical condition
2. Assist client with	2.1 Client food preferences are recorded and acted
meal selection	upon according to organization procedures
	2.2 Client are advised on meal choices as per care
	plan developed by a dietitian or other relevant
	health professional
	2.3 Client are assisted with marking menus, placing
	of meal orders and/or selection of meal as per
	client requests
3. Formulate diet	3.1 Client daily nutrition requirement are determined
recipes and menu	as per client nutrition needs
	3.2 Guide on appropriate menu as per client nutrition
	needs
	3.3 Food ingredients are selected as per nutrition
	requirement

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	3.4 Recipe is prepared as per nutritional requirements
4. Prepare	4.1 Recipe is obtained as per client nutrition needs
formulated meals	4.2 Selected ingredients are obtained as per client
	need
	4.3 Meal is prepared as per menu
5. Asses food safety	5.1 Nutrition support services are prepared according
and hygiene	to food safety program
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5.2 Processes and practices that are not consistent
	with the food safety program are identified and
	reported as per work place procedures
	5.3 Corrective action is taken according to the food
	safety program
	5.4 Nutrition support information or items are
	supplied according to organization procedures
	1.1 Out of date nutrition support supplements and/or
	outdated nutrition support information are
	discarded as per work place procedures
	1.2 Personal hygiene requirements of the food safety program are identified as per work place
	procedures
	1.3 Health conditions and/or illness are reported
	according to the food safety program
	1.4 PPES for food handling tasks are worn
	according to the food safety plan
6. Document meal	6.1 <i>Registers</i> are availed as per work place
planning and	procedures
management	6.2 Dietary regime is availed as per work place
	procedures 6.3 Patient file is maintained as per work place
	6.3 Patient file is maintained as per work place policy
	poncy

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

Variable	Range
1. Registers	1.1 Diet requisition
	1.2 Diet distribution
	1.3 Menu cards
	1.4 Diet prescriptions

### **REQUIRED KNOWLEDGE AND UNDERSTANDING**

The individual needs to demonstrate knowledge of:

### Knowledge

- Nutrition heath education and counselling
- Diet therapy
- Reference charts
- Nutrition supplements
- Nutrient drug interaction

### SKILLS

The individual needs to demonstrate the following skills:

- ICT
- Communication
- Information technology
- Analysis
- Synthesis and evaluation
- Decision making
- Management
- Leadership

# **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	Assessment requires evidence that the candidate:
of Competency	Demonstrates;
	1.1 Ability to determine client nutritional needs
	1.2 Ability to assist client with meal selection
	1.3 Ability to formulate diet recipes and menu
	1.4 Ability to prepare formulated meals
	1.5 Ability to asses food safety and hygiene
	1.6 Ability to document meal planning and
	management

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2.	Resource	The following resources must be provided:
	Implications	2. 1Nutrition books
3.	Methods of	Competency may be accessed through:
	Assessment	3.1 Written tests
		3.2 Oral questioning
		3.3 Third party reports
		3.4 Case studies
4.	Context of	Competency may be assessed:
	Assessment	4.1 On the job
		4.2 Off the job
		4.3 In work placement (attachment)
		4.4 Off the job assessment must be undertaken in a
		closely simulated workplace environment
5.	Guidance	Holistic assessment with other units relevant to the
	information for	industry subsector, workplace and job roles is
	assessment	recommended.

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### MANAGE MATERNAL AND CHILD NUTRITION

#### UNIT CODE: MED/OS/NUD/CR/06/6/A

### **UNIT DESCRIPTION**

This unit specifies the competencies required to manage maternal and child nutrition.it involves advising on nutrition requirement during pregnancy, managing preterm and low birth weight baby, informing on complementary feeding and weaning, managing challenges in maternal child nutrition, providing nutrient supplementation in pregnancy and childhood and documenting maternal and child nutrition care

ELEMENT	PERFORMANCE CRITERIA
These describe the key	These are <b>assessable</b> statements which specify the
outcomes which make up	required level of performance for each of the elements.
workplace function.	Bold and italicized terms are elaborated in the range.
1. Advice on	1.1 Adequate weight gain through sufficient and
nutrition	balanced protein and energy intake is promoted
requirement during	as per workplace requirement
pregnancy	1.2 consistent and continued use of micronutrient
	supplements, food supplements or fortified foods
	are encouraged as per client nutrition needs
	1.3 Clients are advised that a healthy diet during
	pregnancy contains adequate energy, protein,
	vitamins and minerals, obtained through the
	consumption of a variety of foods
2. Manage preterm	2.1 Babies growth is monitored as per work place
and low birth	procedures
weight baby	2.2 Babies are fed as per their nutrition requirement
	2.3 Babies' heath status is monitored as per work
	place procedures
	2.4 Exclusive breastfeeding is encouraged for the
	first six months
	2.5 Breast milk is fortification is carried out as per
	work place procedures
3. Inform on	3.1 Dietary requirements are obtained as per work
complementary	place procedures
feeding	3.2 Breastfeeding is observed for two years as per
	WHO guidelines
	3.3 Babies growth is monitored as per work place
	procedures

I	
	3.4 Babies are supplemented with micronutrients as per their nutrition requirements
4. Manage challenges in maternal child nutrition	<ul> <li>4.1 Macro and micro nutrients deficiency are addressed as per nutritional needs</li> <li>4.2 Food intake is monitored as per nutrition requirements</li> <li>4.3 Quality of nutrition is improved as per work place procedures</li> <li>4.4 Food malnutrition is addressed as per nutrition requirements</li> <li>4.5 Infections are controlled as per standard operating procedures</li> <li>4.6 Nutrition related disorders are addressed as per work place procedures</li> <li>4.7 Congenital disorders are addressed as per</li> </ul>
	standard operating procedures
5. Provide nutrient supplementation in pregnancy and childhood	<ul> <li>5.1 Macro and micro nutrients are administered as per WHO guidelines</li> <li>5.2 IMAM guidelines are followed as per WHO standards</li> <li>5.3 Therapeutic feeding is administered as per WHO standards</li> </ul>
6. Document maternal and child nutrition care	<ul><li>6.1 Mother baby booklet is obtained as per WHO standards</li><li>6.2 MOH registers are availed as per ministry of health standards</li></ul>

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

Variable	Range

1. nutritional	1.1 Folic acid
supplements	1.2 Vitamin A
	1.3 Iron
	1.4 Multiple micronutrients

## **REQUIRED KNOWLEDGE AND UNDERSTANDING**

The individual needs to demonstrate knowledge of:

#### Knowledge

Macro and micro nutrients WHO guidelines WFP guidelines Anatomy and physiology

#### SKILLS

The individual needs to demonstrate the following skills:

- ICT
- Communication
- Information technology
- Analysis
- Synthesis and evaluation
- Decision making
- Management
- Leadership

#### **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	Assessment requires evidence that the candidate:
of Competency	Demonstrates;
	1.1 Ability to advice on nutrition requirement during
	pregnancy
	1.2 Ability to manage preterm and low birth weight
	baby
	1.3 Ability to inform on complementary feeding and
	weaning
	1.4 Ability to manage challenges in maternal child
	nutrition
	1.5 Ability to provide nutrient supplementation in
	pregnancy and childhood

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		1.6 Ability to document maternal and child nutrition	
		care	
2.	Resource	The following resources must be provided:	
	Implications	5.1	
3.	Methods of	Competency may be accessed through:	
	Assessment	3.1 Written tests	
		3.2 Oral questioning	
		3.3 Third party reports	
		3.4 Case studies	
4.	Context of	Competency may be assessed:	
	Assessment	• On the job	
		• Off the job	
		• In work placement (attachment)	
		Off the job assessment must be undertaken in a closely	
		simulated workplace environment	
5.	Guidance	Holistic assessment with other units relevant to the	
	information for	industry subsector, workplace and job roles is	
	assessment	recommended.	
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# CONDUCT NUTRITION EDUCATION AND COUNSELLING

### UNIT CODE: MED/OS/NUD/CR/07/6/A

## UNIT DESCRIPTION

This unit specifies the competencies required to manage nutrition and dietetic services It includes: assessing concepts of counselling, evaluating patients' response to nutritional care plan, exploring dietary modifications and supporting the client with acceptance of nutrition care plan

ELEMENT	PERFORMANCE CRITERIA
These describe the key	These are <b>assessable</b> statements which specify the
outcomes which make up	required level of performance for each of the elements.
workplace function.	Bold and italicized terms are elaborated in the range.
1. Asses concepts of counselling	<ul> <li>1.1 <i>Counselling techniques</i> are identified are as per work place procedures</li> <li>1.2 Counselling environment is identified as per work place procedures</li> <li>1.3 Ethical principles of counselling are observed as per work place policy</li> </ul>
2. Evaluate patients' response to nutritional care plan	<ul> <li>2.1 Client dietary compliance is assessed as per work place procedure</li> <li>2.2 Client knowledge on recommended diet is tested as per work place procedures</li> <li>2.3 Counselling goals are monitored as per work place policy</li> </ul>
3. Explore dietary modifications	<ul> <li>3.1 Critical nutrition actions are observed as per work place procedures</li> <li>3.2 Diet recommendation are given as per work place procedures</li> <li>3.3 Result of nutrition assessment are interpreted as per work place policy</li> </ul>
4. Support the client with acceptance of nutrition care plan	4.1 The acceptability, tolerance and consumption of meals by the client are reported to the dietitian or relevant health professional

4.2 Problems which may lead to poor acceptance
and/or tolerance of the nutrition care plan by
client are reported to the dietitian
4.3 Information regarding nutrition care plan is
provided to client when appropriate and as
directed by dietitian or relevant health
professional
4.4 Feedback about changes to food preferences and
nutrition care are provided to catering/food
services and to dietitians

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

Variable	Range
1. Counselling	• Family therapy
techniques	Cognitive distortion
	Cognitive behavioral therapy
	Communication skill

# **REQUIRED KNOWLEDGE AND UNDERSTANDING**

The individual needs to demonstrate knowledge of:

# Knowledge

- Etiology
- Anatomy and physiology
- Macro and micro nutrients
- Nutrition and disease

# SKILLS

The individual needs to demonstrate the following skills:

- ICT
- Communication
- Information technology
- Analysis
- Synthesis and evaluation
- Decision making
- Management

• Leadership

# **EVIDENCE GUIDE**

1	Critical Aspects	Assessment requires evidence that the candidate:
1.	of Competency	Demonstrates;
	of Competency	
		1.1 Ability to asses' concepts of counselling
		1.2 Ability to evaluate patients' response to nutritional
		care plan
		1.3 Ability to explore dietary modifications
		1.4 Ability to support the client with acceptance of
		nutrition care plan
2.	Resource	The following resources must be provided:
	Implications	2.1 Nutrition books
3.	Methods of	Competency may be accessed through:
	Assessment	3.1 Written tests
		3.2 Oral questioning
		3.3 Third party reports
		3.4 Case studies
4.	Context of	Competency may be assessed:
	Assessment	4.1 On the job
		4.2 Off the job
		4.3 In work placement (attachment)
		4.4 Off the job assessment must be undertaken in a
		closely simulated workplace environment
5.	Guidance	Holistic assessment with other units relevant to the
	information for	industry subsector, workplace and job roles is
	assessment	recommended.

#### **PROVIDE DIET THERAPY I**

#### UNIT CODE: MED/OS/NUD/CR/08/6/A

#### **UNIT DESCRIPTION**

This unit addresses the unit of competency: provide diet therapy in diseases states involving GIT disorders; diarrhoea, nausea and vomiting, constipation, peptic ulcers, gastritis, diverticular disease, hiatal hernia, celiac disease. Febrile disorders; malaria, pneumonia, coughs, TB, measles and cancers.

EMENT	PERFORMANCE CRITERIA
These describe the key	These are <b>assessable</b> statements which specify the
outcomes which make up	required level of performance for each of the elements.
workplace function.	Bold and italicized terms are elaborated in the range.
1. Identify terminologies in diet therapy I	<ol> <li>1. 1Terminologies under diet therapy I are identified and described as per resource materials, policies and guidelines</li> <li>1. 2The relationship between nutrition and disease and the roles of nutrition in disease management are clearly illustrated as per resource materials, policies and guidelines</li> <li>1. 3The diet planning principles and objectives of diet therapy are identified and described as per resource material, policies and guidelines</li> </ol>
2. Demonstrate understanding in nutrition management of GIT disorders	<ul> <li>2.1 Terminologies under GIT disorders are identified and described as per resource materials, policies and guidelines</li> <li>2.2 Disorders the upper GIT and nutrition management are identified and described as per resource materials, policies and guidelines</li> <li>2.3 Disorders of the lower GIT and nutrition management are identified and described as per resource materials, policies and guidelines</li> </ul>
3. Demonstrate understanding in nutrition management of the respiratory and febrile disorders	<ul> <li>3.1 Terminologies under respiratory and febrile disorders are identified and described as per resource materials, policies and guidelines</li> <li>3.2 Disorders of upper, lower respiratory tract, febrile disorders and their nutrition management are</li> </ul>

	identified and described as per resource materials, policies and guidelines
4. Demonstrate understanding in nutritional management of cancers	<ul> <li>4.1 Terminologies in cancers are identified and described as per resource materials, policies and guidelines</li> <li>4.2 Pathophysiology of cancers are identified and described as per resource materials, policies and guidelines</li> <li>4.3 Types of cancers are identified and described as per resource materials, policies and guidelines</li> <li>4.4 Etiology of cancers are identified and described as per resource materials, policies and guidelines</li> <li>4.5 Cancer treatment and nutrition implications are identified and described as per resource materials, policies and guidelines</li> <li>4.6 Nutritional management of cancers are identified and described as guidelines</li> </ul>
5. Demonstrate understanding in nutritional management of HIV and AIDS	<ul> <li>5.1 Terminologies in HIV and AIDS are identified and described as per resource materials, policies and guidelines</li> <li>5.2 Relationship between malnutrition and HIV and AIDS, and the roles of nutrition in management of HIV and AIDS Terminologies in cancers are identified and described as per resource materials, policies and guidelines</li> <li>5.3 Opportunistic infections are identified and their nutritional management described as per resource materials, policies and guidelines</li> <li>5.4 Knowledge on Infant and young child feeding in the context of HIV and AIDS is demonstrated as per resource materials, policies and guidelines</li> <li>5.5 Knowledge on nutrient drug interactions in ART is demonstrated as per resource materials, policies and guidelines</li> </ul>
6. Demonstrate understanding in nutritional management of	6.1 Childhood disorders are identified and described as per resource materials, policies and guidelines

childhood	
disorders	

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

Variable	Range	
1. Type of	• Normal	
feeding	Modified kitchen feeds	
	• Enteral feeds	
	Parenteral feeds	
2. Implications	• Acute	
	• Chronic	

## REQUIRED KNOWLEDGE AND UNDERSTANDING

The individual needs to demonstrate knowledge of:

## Knowledge

Nutrition and disease

Anatomy and physiology

WHO guidelines

MOH guidelines

Macro and micro nutrients

Biochemical analysis

# SKILLS

The individual needs to demonstrate the following skills:

- ICT
- Communication
- Information technology
- Analysis
- Synthesis and evaluation
- Decision making
- Management
- Leadership

# **EVIDENCE GUIDE**

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1. Critical Aspects	Assessment requires evidence that the candidate:
of Competency	Demonstrates;
r r r r r r r r r r r r r r r r r r r	2. 1 Ability to carry out client nutritional assessment
	2. 2 Ability to identify client's condition
	2. 3 Ability to design phases of the care process
	2. 4 Ability to determine special dietary needs
	2. 5 Ability to determine types of feeding
	2. 6 Ability to carry out nutritional risk assessment
2. Resource	The following resources must be provided:
Implications	2. 1Nutrition books
3. Methods of	Competency may be accessed through:
Assessment	3.1 Written tests
	3.2 Oral questioning
	3.3 Third party reports
	3.4 Case studies
4. Context of	Competency may be assessed:
Assessment	4.1 On the job
	4.2 Off the job
	4.3 In work placement (attachment)
	4.4 Off the job assessment must be undertaken in a
	closely simulated workplace environment
5. Guidance	Holistic assessment with other units relevant to the
information for	industry subsector, workplace and job roles is
assessment	recommended.

#### **PROVIDE DIET THERAPY II**

### UNIT CODE: MED/OS/NUD/CR/09/6/A UNIT DESCRIPTION

This unit addresses the unit of competency: provide diet therapy in diseases states involving CVDs; Atherosclerosis, stroke, hypertension, myocardial infarction, angina pectoris, deep vein thrombosis. Renal disorders; glomerulonephritis, nephrotic syndrome, kidney stones AKD, CKD, kidney failure. Liver and gallbladder disorders; jaundice, liver encephalopathy, hepatitis, alcoholic liver disease, liver cirrhosis, gallbladder disease, disease of the pancreas. Metabolic disorders; diabetes mellitus, hyperthyroidism, hypothyroidism, hyperkalaemia, ketoacidosis. Mental and mood disorders; schizophrenia, bipolar, depression anxiety disorders, post trauma stress (PTSD) disorders and degenerative disorders.

EMENT	PERFORMANCE CRITERIA
These describe the <b>key</b>	These are <b>assessable</b> statements which specify the
outcomes which make up	required level of performance for each of the elements.
-	-
workplace function.	Bold and italicized terms are elaborated in the range.
1. Identify	1.1 Terminologies under diet therapy II are identified and
terminologies in	described as per resource materials, policies and
diet therapy II	guidelines
	1.2 The relationship between nutrition and disease and
	the roles of nutrition in disease management are
	clearly illustrated as per resource materials, policies
	and guidelines
	1.3 The objectives of diet therapy II are identified and
	described as per resource material, policies and
	guidelines
2. Demonstrate	2. 1Terminologies under CVDs disorders are identified
understanding in	and described as per resource materials, policies and
nutrition	guidelines
management of	2. 2CVDs are identified and their pathophysiology
CVDs disorders	discussed as per resource materials, policies and
	guidelines
	2. 3Nutritional management of CVDs are are identified
	and described as per resource materials, policies and
	guidelines
	Saldonnes

3.	Demonstrate understanding in nutrition management of the renal disorders	<ul> <li>3.1 Terminologies under renal disorders are identified and described as per resource materials, policies and guidelines</li> <li>3.2 Renal disorders are identified and their pathophysiology discussed as per resource materials, policies and guidelines</li> <li>3.3 Nutritional management of renal disorders are identified and described as per resource materials, policies and guidelines</li> </ul>
4.	Demonstrate understanding in nutritional management of liver and gallbladder disorders	<ul> <li>4.1 Terminologies under liver and gallbladder disorders are identified and described as per resource materials, policies and guidelines</li> <li>4.2 Liver and gallbladder disorders are identified and their pathophysiology discussed as per resource materials, policies and guidelines</li> <li>4.3 Nutritional management of liver and gallbladder disorders are identified and described as per resource materials, policies and guidelines</li> </ul>
5.	Demonstrate understanding in nutritional management of metabolic disorders	<ul> <li>5.1 Terminologies under metabolic disorders are identified and described as per resource materials, policies and guidelines</li> <li>5.2 Metabolic disorders are identified and their pathophysiology discussed as per resource materials, policies and guidelines</li> <li>5.3 Nutritional management of metabolic disorders are identified and described as per resource materials, policies and guidelines</li> </ul>
6.	Demonstrate understanding in nutritional management of mental and mood disorders	<ul> <li>6.1 Terminologies under mental and mood disorders are identified and described as per resource materials, policies and guidelines</li> <li>6.2 Mental and mood disorders are identified and their pathophysiology discussed as per resource materials, policies and guidelines</li> <li>6.3 Nutritional management of mental and mood disorders are identified and described as per resource materials, policies and guidelines</li> </ul>

7. Demonstrate	7.1 Degenerative disorders are identified and
understanding in	described as per resource materials, policies and
nutritional	guidelines
management of	
degenerative	
disorders	

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

Variable	Range
1. Type of	• Normal
feeding	Modified kitchen feeds
	• Enteral feeds
	Parenteral feeds
2. Implications	Acute
	Chronic

# REQUIRED KNOWLEDGE AND UNDERSTANDING

The individual needs to demonstrate knowledge of:

- Nutrition and disease
- Anatomy and physiology
- WHO guidelines
- MOH guidelines
- Macro and micro nutrients
- Biochemical analysis

#### SKILLS

The individual needs to demonstrate the following skills:

- ICT
- Communication
- Information technology
- Analysis
- Synthesis and evaluation
- Decision making
- Management
- Leadership

# **EVIDENCE GUIDE**

1	Critical Aspects of	Assessment requires evidence that the candidate:
	Competency	Demonstrates;
		1.1 Ability to carry out client nutritional assessment
		1.2 Ability to identify client's condition
		1.3 Ability to design phases of the care process
		1.4 Ability to determine special dietary needs
		1.5 Ability to determine types of feeding
		1.6 Ability to carry out nutritional risk assessment
2	Resource	The following resources must be provided:
	Implications	2. 1 Nutrition books
3	Methods of	Competency may be accessed through:
	Assessment	3.1 Written tests
		3.2 Oral questioning
		3.3 Third party reports
		3.4 Case studies
4	Context of	Competency may be assessed:
	Assessment	4.1 On the job
		4.2 Off the job
		4.3 In work placement (attachment)
		4.4 Off the job assessment must be undertaken in a
		closely simulated workplace environment
5	Guidance	Holistic assessment with other units relevant to the
	information for	industry subsector, workplace and job roles is
	assessment	recommended.

#### PERFORM DIETETICS OPERATIONS

## UNIT CODE: MED/OS/NUD/CR/10/6/A UNIT DESCRIPTION

This unit specifies the competencies required to perform dietetics operations. It includes identifying terminologies in dietetics, demonstrating understanding of modified diets, demonstrating understanding in enteral nutrition, demonstrating understanding in parenteral nutrition, demonstrating understanding in nutritional management of surgery, trauma, and burn, demonstrating understanding of palliative and hospice care and demonstrating understanding in nutrient drug interactions.

EMENT	PERFORMANCE CRITERIA
These describe the <b>key</b>	These are <b>assessable</b> statements which specify the
outcomes which make up	required level of performance for each of the
workplace function.	elements.
	Bold and italicized terms are elaborated in the
	range.
1. Identify terminologies in	1. 1Terminologies in dietetics are identified and
dietetics	described as per resource materials, policies and guidelines
	1. 2Normal and modified diets are described as per
	resource materials, policies and guidelines
2. Demonstrate	2.1 Factors to be considered when modifying a diet
understanding of modified	are identified and described as per resource
diets	materials, policies and guidelines
	2.2 Therapeutic modification of normal diet is
	described and performed as per resource
	materials, policies and guidelines
3. Demonstrate	3.1 Terminologies in enteral nutrition are identified
understanding in enteral	and described as per resource materials, policies
nutrition	and guidelines
	3.2 Tube feeding/enteral nutrition routes are
	identified and described as per resource
	materials, policies and guidelines
	3.3 Types of enteral formulas are identified and
	described as per resource materials, policies and
	guidelines

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4.	Demonstrate	4.1 Terminologies in parenteral nutrition are
	understanding in	identified and described as per resource
	parenteral nutrition	materials, policies and guidelines
		4.2 Parenteral nutrition routes are identified and
		described as per resource materials, policies and
		guidelines
		4.3 Administration of parenteral nutrition are
		identified and described as per resource
		materials, policies and guidelines
		4.4 Complications of parenteral nutrition and their
		nutritional management are identified and
		described as per resource materials, policies and
		guidelines
5.	Demonstrate	5.1 Terminologies in surgery, trauma and burns are
	understanding in	identified and described as per resource
	nutritional management of	materials, policies and guidelines
	surgery, trauma, and burn	5.2 Burns pathophysiology and their nutritional
		management are identified and described as per
		resource materials, policies and guideline
		5.3 Surgery nutrition implications of surgery and
		management are identified and described as per
		resource materials, policies and guidelines
6	Demonstrate	6.1 Terminologies in palliative and hospice care are
0.	understanding of palliative	identified and described as per resource
	and hospice care	materials, policies and guidelines
	and hospice cure	6.2 Nutrition support during palliative and hospice
		care are identified and described as per resource
		materials, policies and guidelines.
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7	Demonstrate	7.1 Terminologies in nutrient drug interactions are
,.	understanding in nutrient	identified and described as per resource
	drug interactions	materials, policies and guidelines
	arag interactions	7.2 Specific drug nutrient interactions with nutrition
		implications are identified and described as per
		resource materials, policies and guidelines
		resource materials, policies and guidennes

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

Variable	Range
1. Type of	Normal
feeding	Modified kitchen feeds
	Enteral feeds
	Parenteral feeds
2. Implications	Acute
	Chronic

### **REQUIRED KNOWLEDGE AND UNDERSTANDING**

The individual needs to demonstrate knowledge of:

#### Knowledge

- Nutrition and disease
- Anatomy and physiology
- WHO guidelines
- MOH guidelines
- Macro and micro nutrients
- Biochemical analysis

#### SKILLS

The individual needs to demonstrate the following skills:

- ICT
- Communication
- Information technology
- Analysis
- Synthesis and evaluation
- Decision making
- Management
- Leadership

## **EVIDENCE GUIDE**

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

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1	Critical Aspects of	Assessment requires evidence that the candidate:
	Competency	Demonstrates;
		1. 1Ability to carry out client nutritional assessment
		1. 2Ability to identify client's condition
		1. 3Ability to design phases of the care process
		1. 4Ability to determine special dietary needs

		1. 5Ability to determine types of feeding
		1. 6Ability to carry out nutritional risk assessment
2	Resource	The following resources must be provided:
	Implications	2.1 Nutrition books
3	Methods of	Competency may be accessed through:
	Assessment	3.1 Written tests
		3.2 Oral questioning
		3.3 Third party reports
		3.4 Case studies
4	Context of	Competency may be assessed:
	Assessment	4.1 On the job
		4.2 Off the job
		4.3 In work placement (attachment)
		4.4 Off the job assessment must be undertaken in a
		closely simulated workplace environment
5	Guidance	Holistic assessment with other units relevant to the
	information for	industry subsector, workplace and job roles is
	assessment	recommended.
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## **APPLY DIETETIC PRINCIPLES**

Unit code: MED/OS/NUD/CR/11/6/A/A

#### **Unit Description**

This unit specifies the competencies required to manage nutrition and dietetic services. It includes: diet modifications, enteral and parenteral nutrition, surgery, trauma and burns management, and palliative and hospice care and drug nutrient interactions.

EMENT	PERFORMANCE CRITERIA
These describe the <b>key</b>	These are <b>assessable</b> statements which specify the
outcomes which make up	required level of performance for each of the
workplace function.	elements.
-	Bold and italicized terms are elaborated in the
	range.
1. Identify terminologies in	1. 3 Terminologies in dietetics are identified and
dietetics	described as per resource materials, policies and
	guidelines
	1. 4 Normal and modified diets are described as per
	resource materials, policies and guidelines
2. Demonstrate	2.1 Diet modifications in the management of non-
understanding of	communicable disorders are described as per
modified diets in the	relevant resource materials and work procedure.
management of non-	2.2 Diet modification in the management of
communicable and	communicable disorders are described as per the
communicable diseases	relevant resource materials and work procedures
	2.3 Modified diets are produced as per work
	procedures and relevant resource materials
3. Demonstrate	3.1 Management of <i>SAM</i> and <i>MAM</i> are described as
understanding in the	per IMAM guidelines and other resource
management of	materials
malnutrition and	3.2 Management of overweight and other eating
micronutrient	disorders is described as per work procedures,
deficiencies of public	MOH, WHO and other relevant resource
health concerns	materials
	3.3 Roles of nutrient supplements and fortified foods
	in the management of micronutrient deficiencies
	of public health concerns are discussed as per
	relevant resource materials and work procedures

4. Demonstrate understanding in enteral nutrition	<ul> <li>4.1 Terminologies in enteral nutrition are identified and described as per resource materials, policies and guidelines</li> <li>4.2 Tube feeding/enteral nutrition routes are identified and described as per resource materials, policies and guidelines</li> <li>4.3 Types of enteral formulas are identified and described as per resource materials, policies and guidelines</li> </ul>
5. Demonstrate understanding in parenteral nutrition	<ul> <li>5.1 Terminologies in parenteral nutrition are identified and described as per resource materials, policies and guidelines</li> <li>5.2 Parenteral nutrition routes are identified and described as per resource materials, policies and guidelines</li> <li>5.3 Administration of parenteral nutrition are identified and described as per resource materials, policies and guidelines</li> <li>5.4 Complications of parenteral nutrition and their nutritional management are identified and described as per resource materials, policies and guidelines</li> </ul>
6. Demonstrate understanding in nutritional management of surgery, trauma, and burn	<ul> <li>6.1 Terminologies in surgery, trauma and burns are identified and described as per resource materials, policies and guidelines</li> <li>6.2 Burns pathophysiology and their nutritional management are identified and described as per resource materials, policies and guideline</li> <li>6.3 Surgery nutrition implications of surgery and management are identified and described as per resource materials, policies and guidelines</li> </ul>
<ol> <li>Demonstrate understanding of palliative and hospice care</li> </ol>	<ul> <li>7.1 Terminologies in palliative and hospice care are identified and described as per resource materials, policies and guidelines</li> <li>7.2 Nutrition support during palliative and hospice care are identified and described as per resource materials, policies and guidelines.</li> </ul>

8. Demonstrate	8.1 Terminologies in nutrient drug interactions are
understanding in nutrient	identified and described as per resource
drug interactions	materials, policies and guidelines
	8.2 Specific drug nutrient interactions with nutrition
	implications are identified and described as per
	resource materials, policies and guidelines

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

Variable	Range
	May include but not limited to:
1. Type of feeding	Normal
	Modified kitchen feeds
	• Enteral feeds
	• Parenteral feeds
2. Implications	• Acute
	Chronic
3. SAM	Severe Acute malnutrition
4. MAM	Moderate Acute Malnutrition
5. IMAM	Integrated Management of Acute Malnutrition

# **REQUIRED KNOWLEDGE AND UNDERSTANDING**

The individual needs to demonstrate knowledge of:

#### Knowledge

- Nutrition and disease
- Anatomy and physiology
- WHO guidelines
- MOH guidelines
- Macro and micro nutrients
- Biochemical analysis

#### SKILLS

The individual needs to demonstrate the following skills:

- ICT
- Communication
- Information technology
- Analysis
- Synthesis and evaluation

- Decision making
- Management
- Leadership

## **EVIDENCE GUIDE**

1	Critical Aspects of	Assessment requires evidence that the candidate:
	Competency	Demonstrates;
		1. 1Ability to carry out client nutritional assessment
		1. 2Ability to identify client's condition
		1. 3Ability to design phases of the care process
		1. 4Ability to determine special dietary needs
		1. 5Ability to determine types of feeding
		1. 6Ability to carry out nutritional risk assessment
2	Resource	The following resources must be provided:
	Implications	2.1 Skills lab
		2.2 Library
		2.3 Fully equipped kitchen
		2.4 Food tab
3	Methods of	Competency may be accessed through:
	Assessment	3.1 Written tests
		3.2 Oral questioning
		3.3 Third party reports
		3.4 Case studies
4	Context of	Competency may be assessed:
	Assessment	4.1 On the job
		4.2 Off the job
		4.3 In work placement (attachment)
		Off the job assessment must be undertaken in a closely
		simulated workplace environment
5	Guidance	Holistic assessment with other units relevant to the
	information for	industry subsector, workplace and job roles is
	assessment	recommended.

#### CONDUCT NUTRITION ASSESSMENT AND SURVEILLANCE

#### UNIT CODE: MED/OS/NUD/CR/12/6/A

#### **UNIT DESCRIPTION**

This unit specifies the competencies required to conduct nutrition assessment and surveillance .it includes conducting anthropometric assessment, interpreting biochemical assessment result, conducting clinical examination, conducting dietary surveys, conducting nutrition surveillance and conducting program monitoring and evaluation

ELEMENT	PERFORMANCE CRITERIA
These describe the key	These are <b>assessable</b> statements which specify the
outcomes which make up	required level of performance for each of the elements.
workplace function.	Bold and italicized terms are elaborated in the range.
1. Conduct anthropometric assessment	<ul> <li>1.1 Anthropometric measurements are determined as per user needs</li> <li>1.2 Anthropometric method is determined as per user needs</li> <li>1.3 Anthropometric tools are identified as per anthropometric measurement</li> <li>1.4 Anthropometric measurements are evaluated as per anthropometric results</li> </ul>
2. Interpret biochemical assessment result	<ul> <li>2.1 Laboratory results are interpreted as per reference interval</li> <li>2.2 Laboratory result are evaluated as per biological variation knowledge</li> <li>2.3 Influence of <i>errors</i> is determined</li> <li>2.4 Diagnostic sensitivity and specify are identified</li> </ul>
3. Conduct clinical examination	<ul> <li>3.1 Patient medical history is obtained as per organizational procedures</li> <li>3.2 Systems are reviewed as per physical examination</li> <li>3.3 Physical examination is conducted as per client needs</li> </ul>

	3.4 Risk assessment is carried out as per medical procedures.
4. Conduct dietary surveys	<ul> <li>4.1 <i>Dietary method</i> is determined as per work place policy</li> <li>4.2 Dietary recall questionnaire is conducted as per client nutrition requirements</li> <li>4.3 Food frequency questionnaire are conducted as per nutritional requirement</li> <li>4.4 Diet history is obtained as per clients' records</li> </ul>
5. Conduct nutrition surveillance	<ul><li>5.1 Method of nutrition surveillance is determined</li><li>5.2 Surveillance information is obtained</li><li>5.3 Type of nutrition survey is determined</li></ul>

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

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Variable	Range
1 Dietary method	• 24-hour food recall
	• Food frequency
	Food diary

# **REQUIRED KNOWLEDGE AND UNDERSTANDING**

The individual needs to demonstrate knowledge of:

## Knowledge

- Surveillance
- Research
- Topography

#### SKILLS

The individual needs to demonstrate the following skills:

- ICT
- Communication

- Information technology
- Analysis
- Synthesis and evaluation
- Decision making
- Management
- Leadership

## **EVIDENCE GUIDE**

1.	Critical Aspects	Assessment requires evidence that the candidate:
	of Competency	Demonstrates;
	1 ,	1. 1Ability to conduct anthropometric assessment
		1. 2Ability to conduct interpret biochemical assessment
		result
		1. 3Ability to conduct clinical examination
		1. 4Ability to conduct dietary surveys
		1. 5Ability to conduct nutrition surveillance
2.	Resource	The following resources must be provided:
	Implications	5.1 Nutrition surveys data
3.	Methods of	Competency may be accessed through:
	Assessment	3.1 Written tests
		3.2 Oral questioning
		3.3 Third party reports
		3.4 Case studies
4.	Context of	Competency may be assessed:
	Assessment	• On the job
		• Off the job
		• In work placement (attachment)
		Off the job assessment must be undertaken in a closely
		simulated workplace environment
5.	Guidance	Holistic assessment with other units relevant to the
	information for	industry subsector, workplace and job roles is
	assessment	recommended.