A lion with two lions holding spears

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**REPUBLIC OF KENYA**

**COMPETENCY-BASED MODULAR CURRICULUM**

**FOR**

**NUTRITION AND DIETETICS**

**KNQF LEVEL 5**

**PROGRAMME ISCED CODE: 0915 454A**

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# **FOREWORD**

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

Reforms in the education sector are necessary to achieve Kenya Vision 2030 and meet the provisions of the Constitution of Kenya 2010. The education sector had to be aligned to the Constitution, and this resulted in the formulation of the Policy Framework for Reforming Education and Training in Kenya (Sessional Paper No. 14 of 2012). A key feature of this policy is the radical change in the design and delivery of 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 the mode of delivery allow 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 this curriculum has been developed. For trainees to build their skills on foundational hands-on activities of the occupation, units of learning are grouped in modules. This has eliminated duplication of content and streamlined exemptions based on skills acquired as a trainee progresses in the up-skilling process, while at the same time allowing trainees to be employable in the shortest time possible through the acquisition of part qualifications.

It is my conviction that this curriculum will play a great role in developing competent human resources for the Nutrition and Dietetics Sector’s growth and development.

**PRINCIPAL SECRETARY**

**STATE DEPARTMENT FOR TVET**

**MINISTRY OF EDUCATION**

**PREFACE**

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

CAP 210A and Sessional Paper No. 1 of 2019 on Reforming Education and Training in Kenya for Sustainable Development 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 the Kenyan labour force.

This curriculum has been developed in adherence to the Kenya National Qualifications Framework and CBETA standards and guidelines. The curriculum is designed and organized into Units of Learning with Learning Outcomes, suggested delivery methods, learning resources, and methods of assessing the trainee’s achievement. In addition, the units of learning have been grouped in modules to concretize the skills acquisition process and streamline upskilling.

I am grateful to all expert trainers and everyone who played a role in translating the Occupational Standards into this competency-based modular curriculum.

**CHAIR OF COUNCIL**

**ACKNOWLEDGEMENT**

This curriculum has been designed for competency-based training and has independent units of learning that allow the trainee flexibility in entry and exit. In developing the curriculum, significant involvement and support were received from expert trainers, institutions and organizations.

I recognize with appreciation the role of the National Sector Skills Committee (NSSC) in ensuring that competencies required by the industry are addressed in the curriculum. I also thank all stakeholders in the Nutrition and Dietetics sector for their valuable input and everyone who participated in developing this curriculum.

I am convinced that this curriculum will go a long way in ensuring that individuals aspiring to work in the Nutrition and Dietetics Sector acquire competencies to perform their work more efficiently and effectively.

**COUNCIL SECRETARY/ CEO**

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**ACRONYMS AND ABBREVIATIONS**

ABCs: Airways, Breathing and Circulation

AED: Automated External defibrillator

ARA: Arachidonic acid

CPR: Cardiopulmonary ressucitation

DHA: Docosahexaenoic acid

FBS: Fasting Blood Sugar

GIT: Gastrointestinal Tract

HACCP: Hazard Analysis and Critical Control Point

HB: Hemoglobin

ICT: Information Communication Technology

KNDI: Kenya Nutritionists and Dieticians Institute

MCV: Mean Cell Volume

MUAC: Mid-upper Arm Circumference

PPEs: Personal Protective Equipment

QAIs: Qualifications Awarding Institutions

RBS: Random Blood Sugar

TVET: Technical and Vocational Education and Training

TVETA: Technical and Vocational Education and Training Authority

**KEY TO ISCED UNIT CODE**



**CURRICULUM OVERVIEW**

This Nutrition and Dietetics Level 5 Curriculum consists of competencies that an individual must have to provide nutrition care, provide maternal, infant and young child nutrition, perform dietetics operations, manage specialized meals, provide nutrition in communicable and non-communicable diseases, manage malnutrition cases and conduct nutrition education and counselling.

**SUMMARY OF UNITS OF COMPETENCY**

|  |  |  |  |
| --- | --- | --- | --- |
| **MODULE I UNITS** | | | |
| **Unit**  **Category** | **Unit Code** | **Unit Name** | **Duration (Hours)** |
| **Basic** | **0611 451 01A** | Digital Literacy | 40 |
| **Common** | **0915 454 02A** | Principles of Human Nutrition | 80 |
| **Common** | **0915 454 03A** | Nutrition Legal Ethics | 80 |
| **Core** | **0915 454 04A** | Nutrition Care Process | 100 |
| **Total** | | | **300** |
|  |  | **MODULE II UNITS** |  |
| **Unit**  **Category** | **Unit Code** | **Unit Name** | **Duration (Hours)** |
| **Basic** | **0031 454 05A** | Communication Skills | 40 |
| **Common** | **0915 454 06A** | Human Anatomy and Physiology | 140 |
| **Core** | **0915 454 07A** | Maternal, Infant and Young Child  Nutrition | 120 |
| **Core** | **0915 454 08A** | Dietetics Operations | 120 |
| **Total** | | | **420** |
|  |  | **MODULE III UNITS** |  |
| **Unit**  **Category** | **Unit Code** | **Unit Name** | **Duration (Hours)** |
| **Basic** | **0417 454 09A** | Work Ethics and Practices | 40 |
| **Common** | **0915 454 10A** | First Aid Services | 60 |
| **Core** | **0915 454 11A** | Management of Specialized Meals | 160 |
| **Core** | **0915 454 12A** | Nutrition in Communicable and  Non-Communicable Diseases | 140 |
| **Total** | | | **400** |
|  |  | **Industrial Training** I | **480 HRS** |
|  |  | **MODULE IV UNITS** |  |
| **Unit**  **Category** | **Unit Code** | **Unit Name** | **Duration (Hours)** |
| **Basic** | **0413 454 13A** | Entrepreneurial Skills | 40 |
| **Common** | **0721 454 14A** | Principles of Food Processing and  Preservation | 100 |
| **Core** | **0915 454 15A** | Management of Malnutrition Cases | 100 |
| **Core** | **0915 454 16A** | Nutrition Education and  Counselling | 100 |
| **Total** | | | **340** |
| **GRAND TOTAL** | |  | **1940 HRS** |

The total duration of the course is **1940** hours (65 weeks at 30 hours per week).

**Entry Requirements**

An individual entering this course should have any of the following minimum requirements:

Kenya Certificate of Secondary Education (KCSE) mean grade D (plain),

1. KCSE grade of D (plain) in the following **mandatory** subjects:
2. Chemistry or physical sciences
3. Biology or biological sciences
4. English or Kiswahili
5. KCSE grade of D (plain) in **any** of the following subjects:
6. Physics
7. Mathematics
8. Home science
9. Agriculture or
10. General sciences

**Industrial attachment**

An individual enrolled in this course will be required to undergo a field attachment for a minimum period of 480 hours in a Nutrition and Dietetics sector and any other relevant field.

**Trainer qualification**

A trainer for any of the Units of Competency in this course must:

1. Have at least minimum of a level 6 or its equivalent in the area of specialization.
2. Be licensed by Kenya Nutrition and Dietetics Institute (KNDI).
3. Be licensed by Technical and Vocational and Educational Training Authority (TVETA).

**Assessment Requirements**

The course shall be assessed formatively and summatively:

1. During formative assessment all performance criteria shall be assessed based on performance criteria weighting.
2. Number of formative assessments shall minimally be equal to the number of elements in a unit of competency.
3. During summative assessment basic and common units may be integrated in the core units or assessed as discrete units.
4. Theoretical and practical weighting for each unit of learning shall be as follows:
5. 30:70 for the units in modules I, II, III and IV.
6. Formative and summative assessments shall be weighted at 60% and 40% respectively in the overall unit of learning score

For a candidate to be declared competent in a unit of competency, the candidate must meet the following conditions:

1. Obtained at least 40% in theory assessment in formative and summative assessments.
2. Obtained at least 60% in practical assessment in formative and summative assessment where applicable.
3. Obtained at least 50% in the weighted results between formative assessment and summative assessment where the former constitutes 60% and the latter 40% of the overall score.
4. Assessment performance rating for each unit of competency shall be as follows:

|  |  |
| --- | --- |
| **MARKS** | **COMPETENCE RATING** |
| 80 -100 | Attained Mastery |
| 65 - 79 | Proficient |
| 50 - 64 | Competent |
| 49 and below | Not Yet Competent |
| Y | Assessment Malpractice/irregularities |

1. Assessment for Recognition of Prior Learning (RPL) may lead to award of part and/or full qualification.

**Certification**

A candidate will be issued with a Certificate of Competency upon demonstration of competence in a core Unit of Competency. To be issued with the **Kenya National TVET Certificate** in Nutrition and Dietetics Level 5, the candidate must demonstrate competence in all the Units of Competency as given in the qualification pack. A Statement of Attainment certificate may be issued upon demonstration of competence in a certifiable element within a unit.

The certificates will be issued by the Qualification Awarding Institution

**MODULE I**

**DIGITAL LITERACY**

**UNIT CODE: 0611 451 01A**

**UNIT DURATION: 40 Hours**

**Relationship with Occupational Standards**

This unit addresses the Unit of Competency: Apply Digital Literacy

**Unit Description**

This unit covers the competencies required to apply digital literacy. It involves operating computer devices, solving tasks using the office suite, managing data and information, performing online communication and collaborations, applying cybersecurity skills, performing online jobs and applying job entry techniques.

**Summary of Learning Outcomes**

1. Operate computer devices
2. Solve tasks using office suite
3. Manage data and information
4. Perform online communication and collaborations
5. Apply cybersecurity skills
6. Perform online jobs
7. Apply job entry techniques.

**Learning Outcomes, Content, and Suggested Assessment Methods**

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Outcome** | **Content** | **Duration (Hours)** | **Suggested**  **Assessment Methods** |
| * + - 1. Operate computer devices | * 1. Meaning and importance of digital literacy   2. Functions and Uses of Computers   3. Classification of computers   4. Components of a computer system   Computer Hardware   * + 1. The System Unit E.g. Motherboard, CPU, casing     2. Input Devices e.g. Pointing, keying, scanning, voice/speech recognition, direct data capture devices.     3. Output Devices e.g. hardcopy output and softcopy output     4. Storage Devices e.g. main memory e.g. RAM, secondary storage (Solid state devices, Hard Drives, CDs & DVDs, Memory cards, Flash drives     5. Computer Ports e.g. HDMI, DVI, VGA, USB type C etc.   1. Classification of computer software   2. Operating system functions   3. Procedure for turning/off a computer   4. Mouse use techniques   5. Keyboard Parts and Use Techniques   6. Desktop Customization   7. File and Files Management using an operating system   8. Computer Internet Connection Options      1. Mobile Networks/Data Plans      2. Wireless Hotspots      3. Cabled (Ethernet/Fiber)      4. Dial-Up      5. Satellite   9. Computer external devices management      1. Device connections      2. Device controls (volume controls and display properties) | **6** | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| * + - 1. Solve tasks using office suite | * 1. Meaning and Importance of Word Processing   2. Examples of Word Processors   3. Working with word documents      1. Open and close word processor      2. Create a new document      3. Save a document      4. Switch between open documents   4. Enhancing productivity      1. Set basic options/preferences      2. Help resources      3. Use magnification/zoom tools      4. Display, hide built-in tool bar      5. Using navigation tools   5. Typing Text   6. Document editing (copy, cut, paste commands, spelling and Grammar check)   7. Document formatting      1. Formatting text      2. Formatting paragraph      3. Formatting styles      4. Alignment      5. Creating tables      6. Formatting tables   8. Graphical objects      1. Insert object (picture, drawn object)      2. Select an object      3. Edit an object      4. Format an object   9. Document Print setup      1. Page layout,      2. Margins set up      3. Orientation.   10. Word Document Printing   11. Meaning & Importance of electronic spreadsheets   12. Components of Spreadsheets   13. Application areas of spreadsheets   14. Using spreadsheet application       1. Parts of Excel screen: ribbon, formula bar, active cell, name box, column letter, row number, Quick Access Toolbar.       2. Cell Data Types       3. Block operations       4. Arithmetic operators (formula bar (-, +, \*, /).       5. Cell Referencing   15. Data Manipulation       1. Using Functions (Sum, Average, SumIF, Count, Max, Max, IF, Rank, Product, mode etc.)       2. Using Formulae       3. Sorting data       4. Filtering data       5. Visual representation using charts   16. Worksheet printing   17. Electronic Presentations   18. Meaning and Importance of electronic presentations   19. Examples of Presentation Software   20. Using the electronic presentation application       1. Parts of the PowerPoint screen (slide navigation pane, slide pane, notes, the ribbon, quick access toolbar, and scroll bars).       2. Open and close presentations       3. Creating Slides (Insert new slides, duplicate, or reuse slides.)       4. Text Management (insert, delete, copy, cut and paste, drag and drop, format, and use spell check).       5. Use magnification/zoom tools       6. Apply or change a theme.       7. Save a presentations       8. Switch between open presentations   21. Developing a presentation       1. Presentation views       2. Slides       3. Master slide   22. Text       1. Editing text       2. Formatting       3. Tables   23. Charts       1. Using charts       2. Organization charts   24. Graphical objects       1. Insert, manipulate       2. Drawings   25. Prepare outputs       1. Applying slide effects and transitions       2. Check and deliver          1. Spell check a presentation          2. Slide orientation          3. Slide shows, navigation.          4. Print presentations (slides and handouts) | 14 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| * + - 1. Manage Data and Information | * 1. Meaning of Data and information   2. Importance and Uses of data and information   3. Types of internet services      1. Communication Services      2. Information Retrieval Services      3. File Transfer      4. World Wide Web Services      5. Web Services      6. Automatic Network Address Configuration      7. News Group      8. Ecommerce   4. Types of Internet Access Applications   5. Web browsing concepts      1. Key concepts      2. Security and safety   6. Web browsing      1. Using the web browser      2. Tools and settings      3. Clearing Cache and cookies      4. URIs      5. Bookmarks      6. Web outputs   7. Web based information      1. Search      2. Critical evaluation of information      3. Copyright, data protection   8. Downloads Management   9. Performing Digital Data Backup (Online and Offline)   3.9 Emerging issues in internet | 6 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment. * Third party report |
| * + - 1. Perform online communication and collaboration | * 1. Netiquette principles   2. Communication concepts      1. Online communities      2. Communication tools      3. Email concepts   3. Using email      1. Sending email      2. Receiving email      3. Tools and settings      4. Organizing email   4. Digital content copyright and licenses   5. Online collaboration tools      1. Online Storage (Google Drive)      2. Online productivity applications (Google Docs & Forms)      3. Online meetings (Google Meet/Zoom)      4. Online learning environments      5. Online calendars (Google Calendars)      6. Social networks (Facebook/Twitter - Settings & Privacy)   6. Preparation for online collaboration      1. Common setup features      2. Setup   7. Mobile collaboration      1. Key concepts      2. Using mobile devices      3. Applications Synchronization | 4 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment. * Third party report |
| * + - 1. Apply cybersecurity skills | * 1. Data protection and privacy      1. Confidentiality of data/information      2. Integrity of data/information      3. Availability of data/information   2. Internet security threats      1. Malware attacks      2. Social engineering attacks      3. Distributed denial of service (DDoS)      4. Man-in-the-middle attack (MitM)      5. Password attacks      6. IoT Attacks      7. [Phishing Attacks](https://onlinedegrees.sandiego.edu/top-cyber-security-threats/#phishing-attacks)      8. [Ransomware](https://onlinedegrees.sandiego.edu/top-cyber-security-threats/#ransomware)   3. Computer threats and crimes   4. Cybersecurity control measures      1. Physical Controls      2. Technical/Logical Controls (Passwords,PINs, Biometrics)      3. Operational Controls   5. Laws governing protection of information communication technology (ICT) in Kenya      1. The Computer Misuse and Cybercrimes Act No. 5 of 2018.      2. The Data Protection Act No. 24 Of 2019 | 4 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment. * Third party report |
| * + - 1. Perform online jobs | * 1. Introduction to online working   2. Types of online Jobs   3. Online job platforms      1. Remotask      2. Data annotation tech      3. Cloud worker      4. Upwork      5. Oneforma      6. Appen   4. Online account and profile management   5. Identifying online jobs/job bidding   6. Online digital identity   7. Executing online tasks   8. Management of online payment accounts. | **4** | * Practical * Portfolio of Evidence * Written assessment * Oral assessment. * Third party report |
| * + - 1. Apply job entry techniques | * 1. Types of job opportunities      1. Self-employment      2. Service provision      3. Product development      4. Salaried employment         1. Sources of job opportunities   2. Resume/ curriculum vitae      1. What is a CV      2. How long should a CV be      3. What to include in a CV      4. Format of CV      5. How to write a good CV      6. Don’ts of writing a CV   3. Job application letter      1. What to include      2. Addressing a cover letter      3. Signing off a cover letter   4. Portfolio of Evidence      1. Academic credentials      2. Letters of commendations      3. Certification of participations      4. Awards and decorations   5. Interview skills      1. Listening skills      2. Grooming      3. Language command      4. Articulation of issues      5. Body language      6. Time management      7. Honesty.      8. Generally knowledgeable in current affairs and technical area | 2 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment. * Third party report |

**Suggested Methods Instruction**

* + Instructor-led facilitation using active learning strategies
  + Demonstration
  + Practical
  + Viewing of related videos
  + Group discussions
  + Project
  + Role play
  + Case study

**Recommended Resources for 25 Trainees**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/No.** | **Category/Item** | **Description/Specifications** | **Quantity** | **Recommended Ratio (Item: Trainee)** |
| **A** | **Learning Materials** | | | |
|  | Installation Manuals | Detailed guides for equipment and software installation and troubleshooting | 5 pcs | 1:5 |
|  | PowerPoint Presentations | For trainer’s use, covering course content and practical applications | 1 | 1:25 |
|  | Projector | Functional projector for displaying content during presentations | 1 | 1:25 |
|  | White board | Quality whiteboard of approximately 6 ft by 3 ft for writing during theory instruction | 1 | 1:25 |
|  | Printer | An ink-jet, laser-jet or toner-cartridge printer for printing notes, instructions and working drawings | 1 | 1:25 |
|  | Templates | Templates for creating various documents e.g. CV, Cover Letter, etc. | 25 | 1:1 |
| **B** | **Learning Facilities & Infrastructure** | | | |
|  | Lecture/Theory Room  /Learning Resource  Area\* | Spacious, equipped with projectors and Seats for 25trainees, approximately 45 sqm (5 m x 9 m) | 1 | 1:25 |
|  | Computer Laboratory | Equipped with at least 25 functional computers with internet connectivity and the following software:   * + - Windows/ Linux/ Macintosh Operating System     - Microsoft Office Software     - Google Workspace Account     - Antivirus Software | 25 | 1:1 |
|  |  |  |  |  |
| **C** | **Consumable Materials** | | | |
|  | Printing Papers | A4 and A3 Printing papers suitable for the task | Enough |  |
|  | Whiteboard Marker Pens | Dry-erase markers for trainer’s use. Assorted colours | Enough |  |
|  | Storage devices | Any of the following storage devices:   * USB Flash Drive * USB Hard Drive * Compact Disks (CDs) * Digital Versatile Disks (DVDs) | Enough |  |

**PRINCIPLES OF HUMAN NUTRITION**

**UNIT CODE: 0915 454 02A**

**UNIT DURATION: 80 Hours**

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Apply Principles of Human Nutrition

**Unit Description**

This unit describes competencies required to apply principles of human nutrition. It includes applying knowledge of nutrition, applying knowledge of macronutrients and micronutrients, and apply knowledge of socio-cultural and behavioural perspectives in nutrition.

**Summary of Learning Outcomes**

1. Apply knowledge of nutrition
2. Apply knowledge of macronutrients
3. Apply knowledge of micronutrients
4. Apply knowledge of socio-cultural and behavioral perspectives in nutrition

**Learning Outcomes, Content, and Suggested Assessment Methods**

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| 1. Apply knowledge of nutrition | 1. Basic nutritional concepts    * 1. Definition of terms         1. Nutrition         2. Nutrients         3. Macronutrients         4. Micronutrients         5. Balanced diet         6. Malnutrition         7. Food         8. Dietetics         9. Nutrition status         10. Nutritionist         11. Dietician 2. Orientation to the field of nutrition and dietetics    * 1. History of nutrition and dietetics      2. Importance of studying nutrition      3. Career pathways in nutrition and dietetics 3. Roles of the nutrition care team   1.3.1 Nutritionist  1.3.2 Dietician  1.3.3 Pharmacist  1.3.4 Nurse | 10 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of macronutrients | * 1. Classes of macronutrients      1. Carbohydrates      2. Proteins      3. Lipids   2. Organic food sources for macronutrients   3. Functions of macronutrients   4. Digestion of macronutrients   5. Energy metabolism   6. Macronutrient deficiencies      1. Marasmus      2. Kwashiorkor      3. Marasmic kwashiorkor | 20 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of micronutrients | * 1. Classes of micronutrients      1. Vitamins         1. Water soluble vitamins         2. Fat soluble vitamins      2. Minerals         1. Macro minerals         2. Micro minerals   2. Food sources micronutrients   3. Functions of micronutrients   4. Micronutrients deficiencies      1. Anaemia      2. Goitre      3. Beriberi      4. Pellagra      5. Scurvy      6. Vitamin A deficiencies      7. Vitamin D deficiencies | 15 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of socio- cultural and behavioral perspectives in nutrition | * 1. Social factors in nutrition      1. Social class      2. Socio-economic aspects      3. Knowledge and attitude      4. Religion   2. Cultural aspects in nutrition      1. Cultural notions      2. Food taboos      3. Food myths and misconceptions   3. Behavioral traits in nutrition      1. Personality traits      2. Lifestyle changes      3. Emotional      4. Personal preferences      5. Environment | 15 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |

**Suggested Methods of Instruction**

* Demonstration
* Practical
* Discussions
* Direct instruction
* Role play

**Recommended Resources for 25 Trainees**

|  |  |  |  |
| --- | --- | --- | --- |
| No: | **Type of material** | **Quantity** | **Ratio** |
|  | Flip charts | - | - |
|  | Whiteboard marker | - | - |
|  | Assorted Food models | 5 | 1:5 |
|  | Food samples | 5 | 1:5 |

**Tools and Equipment**

|  |  |  |  |
| --- | --- | --- | --- |
| No: | **Item** | **Quantity** | **Ratio** |
|  | White board | 1 | 1:25 |
|  | Laptop | 1 | 1:25 |
|  | Projector | 1 | 1:25 |
|  | Storage containers | 5 | 1:5 |

**Personal Protective Equipment (PPEs)**

|  |  |  |  |
| --- | --- | --- | --- |
| **No:** | **Item** | **Quantity** | **Ratio** |
|  | Dust coat | 25 | 1:1 |
|  | Closed shoes | 25 | 1:1 |
|  | Gloves | 25 | 1:1 |

**NUTRITION LEGAL ETHICS**

**UNIT CODE: 0915 454 03A**

**UNIT DURATION: 80 Hours**

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Apply Nutrition Legal Ethics

**Unit Description**

This unit describes competencies required to apply nutrition legal ethics. It involves identifying sources of information on nutrition-legal ethics, applying knowledge of nutrition-legal ethics and applying law enforcement policy on nutrition-legal ethics.

**Summary of Learning Outcomes**

1. Identify sources of information on nutrition-legal ethics
2. Apply knowledge of nutrition-legal ethic
3. Apply law enforcement policy on nutrition-legal ethics

**Learning Outcomes, Content, and Suggested Assessment Methods**

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| 1. Identify sources of information on nutrition-legal ethics | 1. Relevant sources of law    * 1. Definition of terms      2. Sources of law      3. Kenya Constitution 2010      4. Judicial precedence      5. Religious law      6. Relevant legislation      7. Common law and equity      8. International law      9. Customary law      10. Functions of law 2. Process of legislation    * 1. Steps of law development 3. Acts governing nutrition and dietetics   Nutrition and dietetics act and policy | 20 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of nutrition-legal ethic | * 1. The structure of Kenyan Judicial system      1. Arms of government and their functions      2. Supreme court      3. Court of appeal      4. High court      5. Magistrates      6. Tribunal   2. Employment terms      1. Definition of terms      2. Types of employment      3. Employment act   3. Specific occupations in nutrition and dietetics      1. Clinical nutrition      2. Clinical dietician      3. Community nutrition      4. Food service      5. Public health nutrition      6. Sports nutrition   4. Medical-legal and ethical issues in nutrition and dietetics   5. Legislations on preservation of life and health | 32 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply law enforcement policy on nutrition-legal ethics | * 1. Public health and safety legislation acts      1. Food and drug act      2. Public health act      3. Poisonous substances act      4. Environmental conservation act      5. Public procurement and asset disposal act      6. Nutrition and dietetics act   2. Pharmacy and poisons legislations   3. Registration of trade and service marks procedures      1. Intellectual property      2. Trade marks      3. Service marks   4. Principles and claims procedures in insurance      1. Law of insurance   5. Legislations and regulations on trade licensing      1. Administrative, authorities and licensing law | 28 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |

**Suggested Methods of Instruction**

* Discussions
* Direct instruction
* Seminars

**Recommended Resources for 25 Trainees**

|  |  |  |  |
| --- | --- | --- | --- |
| **Materials** | | | |
| **No** | **Type of material** | **Quantity** | **Ratio** |
| 1 | Internet connection | - | - |
| 2 | Flip charts | - | - |
| 3 | Whiteboard markers | - | - |
| 4 | Kenya constitution 2010 | 5 | 1:5 |
| **Tools and Equipment** | | | |
| 1 | Laptops | 1 | 1:25 |
| 2 | Whiteboards | 1 | 1:25 |
| 3 | Projectors | 1 | 1:25 |

**NUTRITION CARE PROCESS**

**UNIT CODE: 0915 454 04A**

**UNIT DURATION: 100 Hours**

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Provide Nutrition Care

**Unit Description**

This unit describes competencies required to provide nutrition care. It involves performing nutrition assessment, formulating nutrition diagnosis, implementing, monitoring and evaluating nutrition intervention.

**Summary of Learning Outcomes**

1. Perform nutrition assessment
2. Formulate nutrition diagnosis
3. Implement nutrition intervention
4. Monitor and evaluate nutrition intervention

**Learning Outcomes, Content, and Suggested Assessment Methods**

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| 1. Perform nutrition assessment | * 1. Overview of nutrition care process      1. Definition of terms         1. Nutrition         2. Nutrition care         3. Nutrition status         4. Nutrition care process         5. Diagnosis         6. Interventions      2. Significance of nutrition care process      3. Steps involved in nutrition care process      4. Types of PPEs         1. Gloves         2. Face masks         3. Lab coat         4. Bio hazard waste bins      5. Importance of PPEs      6. Care, Maintenance & Disposal of PPEs   2. Anthropometric measurements methods and tools.      1. Anthropometric measurements         1. Height/Length,         2. Weight         3. BMI         4. Mid-upper Arm Circumference (MUAC),         5. Waist Circumference,         6. Hip circumference         7. Head circumference      2. Anthropometric tools         1. Weighing scale         2. MUAC tapes         3. Stadiometer         4. Reference charts         5. Tape measure         6. Skinfold calipers   3. Biochemical parameters:      1. Types of samples         1. Protein deficiency- Serum Albumin, Pre-albumin         2. Glucose and Diabetes Markers- Fasting Blood Glucose, Hemoglobin A1c (HbA1c)         3. Lipid profile         4. Vitamin deficiency-Vitamin A; B-complex, D         5. Mineral deficiency- iron, zinc, calcium, and iodine   4. Clinical and physical assessments      1. Medical history      2. Physical Examination         1. General appearance         2. Skin condition         3. Hair and nails         4. Eyes         5. Mouth and tongue         6. Teeth and gums   5. Dietary assessment      1. Methods and tools of dietary assessment         1. 24-hour recall,         2. Food frequency questionnaire, Dietary Records         3. Diet History         4. Weighed Food Records         5. Duplicate Diet Method         6. Observation   6. Social economic assessment      1. Income and Economic Resources      2. Education and Nutrition Knowledge      3. Employment and      4. Occupation      5. Access to Food and Food Environments      6. Cultural and Social Norms      7. Household Size and Composition      8. Housing and Living Conditions      9. Health Care Access and Social Support   7. Functionality assessments      1. Body functionality analysis   8. Assessment data documentation      1. Paper-Based Documentation      2. Electronic Health Records (EHRs)      3. Nutrition Software and Mobile Apps | 12 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 2. Formulate nutrition diagnosis | 1. Underlying medical condition    * 1. Gastrointestinal disorders      2. Metabolic disorders      3. Malabsorption syndromes      4. Protein energy malnutrition      5. Chronic diseases      6. Neurological conditions    1. Client’s nutrition related problem       1. Food related allergies and intolerances       2. Malnutrition       3. Micronutrient deficiencies    2. Etiology and contributing risk factors       1. Biological Factors       2. Medical Conditions       3. Dietary Habits       4. Socioeconomic Factors       5. Psychological Factors       6. Environmental Factors    3. Nutrition condition Signs and Symptoms    4. Nutrition diagnosis documentation       1. Formulate Problem Etiology Signs and Symptoms (PES) statement | 32 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Implement nutrition intervention | * 1. Nutrition need      1. Micronutrients      2. Macronutrients   2. Appropriate nutrition intervention      1. Supplementation      2. Education and counselling      3. Diet planning      4. Deworming   3. Intervention plan      1. Dietary Requirements      2. Diet prescriptions & descriptions      3. Food Choices      4. Meal Patterns      5. Portion Control      6. Food Preparation Methods      7. Sample Menus   4. Implementation of designed intervention plan      1. Facilitating Implementation      2. Addressing Challenges | 24 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Monitor and evaluate nutrition intervention | * 1. Key indicators      1. Anthropometric      2. Biochemical      3. Clinical      4. Dietary   2. Development of monitoring schedule   3. Monitoring and evaluation of client progress      1. Regular Check-Ins      2. Clinical Monitoring      3. Biochemical Testing      4. Symptom Tracking      5. Progress Reports      6. Electronic Health Records (EHR)      7. Client Food Journals or Diaries      8. Treatment Plans review      9. Implementation of reviewed intervention changes   4. Documentation of intervention outcomes | 12 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |

**Suggested Methods of Instruction**

* Demonstrations
* Practical
* Discussions
* Direct instruction
* Role play
* Simulation

**Recommended Resources for 25 Trainees**

|  |  |  |  |
| --- | --- | --- | --- |
| Materials | | | |
| No | Type of material | Quantity | Ratio |
| 1 | Internet connection | - | - |
| 2 | Assorted flash cards | - | - |
| 3 | Flip charts | - | - |
| 4 | Whiteboard markers | - | - |
| Tools and Equipment | | | |
| 1 | Laptops | 1 | 1:25 |
| 2 | Whiteboards | 1 | 1:25 |
| 3 | Projectors | 1 | 1:25 |
| 4 | Weighing Scale | 13 | 1:2 |
| 5 | Height/Stadiometers | 13 | 1:2 |
| 6 | Measuring Tape | 13 | 1:2 |
| 7 | Calipers | 13 | 1:2 |
| 8 | Body Mass Index (BMI) wheel | 13 | 1:2 |
| 9 | Glucometer | 5 | 1:5 |
| 10 | Blood Pressure Machine | 5 | 1:5 |
| 11 | Food Frequency Questionnaires (FFQs) | 25 | 1:1 |
| 12 | 24-Hour Dietary Recall | 25 | 1:1 |
| 13 | Food Diaries | 25 | 1:1 |
| 14 | Electronic Health Records (EHRs) | 5 | 1:5 |
| 15 | Food Models and Visual Aids | 5 sets | 1:5 |
| 16 | MUAC Tapes | 13 | 1:2 |
| 17 | Scientific calculator | 25 | 1:1 |
| Personal Protective Equipment | | | |
| 1 | Dust coat or gown | 25 | 1:1 |
| 2 | Closed shoes | 25 | 1:1 |
| 3 | Gloves | 25 | 1:1 |
| 4 | Face masks | 25 | 1:1 |

# **MODULE II**

**COMMUNICATION SKILLS**

**UNIT CODE:** **0031 454 05A**

**UNIT DURATION: 40 Hours**

**Relationship with Occupational Standards**

This unit addresses the Unit of Competency: Apply Communication Skills

**Unit Description**

This unit covers the competencies required to apply communication skills. It involves applying communication channels, applying written communication, applying non-verbal skills, oral communication and group communication skills.

**Summary of Learning Outcomes**

1. Apply communication channels.
2. Apply written communication skills.
3. Apply non-verbal skills.
4. Apply oral communication skills.
5. Apply group communication skills.

**Learning Outcomes, Content, and Suggested Assessment Methods**

| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| --- | --- | --- | --- |
| 1. Apply communication channels | * 1. Communication process   2. Principles of effective communication   3. Channels/medium/modes of communication   4. Factors to consider when selecting a channel of communication   5. Barriers to effective communication   6. Flow/patterns of communication   7. Sources of information   8. Organizational policies | 10 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply written communication skills | * 1. Types of written communication   2. Elements of communication   3. Organization requirements for written communication | 10 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply non-verbal communication skills | * 1. Utilize body language and gestures   2. Apply body posture   3. Apply workplace dressing code | 4 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply oral communication skills | * 1. Types of oral communication pathways   2. Effective questioning techniques   3. Workplace etiquette   4. Active listening | 4 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply group discussion skills | * 1. Establishing rapport      1. Facilitating resolution of issues      2. Developing action plans      3. Group organization techniques      4. Turn-taking techniques      5. Conflict resolution techniques      6. Team-work | 10 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |

**Suggested Methods of Instruction**

1. Discussion
2. Roleplaying
3. Simulation
4. Direct instruction
5. Demonstration
6. Field trips

**Recommended Resources for 25trainees**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/No.** | **Category/Item** | **Description/Specifications** | **Quantity** | **Recommended Ratio (Item: Trainee)** |
| **A** | **Learning Materials** | | | |
|  | Internet connection | Internet connection to aid communication between trainees | - | - |
|  | PowerPoint Presentations | For trainer’s use, covering course content and practical applications | 1 | 1:25 |
|  | Projector | Functional projector for displaying content during presentations | 1 | 1:25 |
|  | White board | Quality whiteboard of approximately 6 feet by 3 feet for writing during theory instruction | 1 | 1:25 |
|  | Printer | An ink-jet, laser-jet or toner-cartridge printer for printing notes, instructions and working drawings | 1 | 1:25 |
| **B** | **Learning Facilities & Infrastructure** | | | |
|  | Lecture/Theory Room  /Learning Resource  Area\* | Spacious, equipped with projectors and Seats for 25trainees, approximately 45 sqm (5 m x 9 m) | 1 | 1:25 |
|  | Computer Laboratory | Equipped with at least 25 functional computers with internet connectivity and the following software:   * + - Windows/ Linux/ Macintosh Operating System     - Microsoft Office Software     - Google Workspace Account     - Antivirus Software | 25 | 1:1 |
|  |  |  |  |  |
| **C** | **Consumable Materials** | | | |
|  | Printing Papers | A4 and A3 Printing papers suitable for the task | Enough |  |
|  | Flashcards | For carrying out various activities by trainees | Enough |  |
|  | Flipcharts | Sufficient for group work activities and displaying | Enough |  |
|  | Whiteboard Marker Pens | Dry-erase markers for trainer’s use. Assorted colours | Enough |  |

**HUMAN ANATOMY AND PHYSIOLOGY**

**UNIT CODE**: **0915 454 06A**

**UNIT DURATION**: **140 Hours**

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Apply Knowledge of Human Anatomy and Physiology

**Unit Description**

This unit standard specifies the competencies required to apply knowledge of human anatomy and physiology. It involves applying knowledge of organization of the human body, applying knowledge of body fluids and their functions, applying knowledge of body tissues, membranes and their functions, applying knowledge of body cavities, applying knowledge of the human skeletal system and body joints, applying knowledge of the major muscles of the body and their functions, applying knowledge of circulatory and lymphatic systems and their functions, applying knowledge of the endocrine system and its functions, applying knowledge of the nervous system special senses and their functions, applying knowledge of the digestive system and its functions, applying knowledge of the urinary system and reproductive systems and their functions and applying knowledge of the respiratory system and its functions.

**Summary of Learning Outcomes**

1. Apply knowledge of organization of the human body
2. Apply knowledge of body fluids and their functions
3. Apply knowledge of body tissues, membranes and their functions
4. Apply knowledge of body cavities
5. Apply knowledge of the human skeletal system and body joints
6. Apply knowledge of the major muscles of the body and their functions
7. Apply knowledge of circulatory and lymphatic systems and their functions
8. Apply knowledge of the endocrine system and its functions
9. Apply knowledge of the nervous system special senses and their functions
10. Apply knowledge of the digestive system and its functions
11. Apply knowledge of the urinary system and reproductive systems and their functions
12. Apply knowledge of the respiratory system and its functions

**Learning Outcomes, Content, and Suggested Assessment Methods**

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| 1. Apply knowledge of organization of the human body | * 1. Anatomical structures, positions, planes and directions      1. Definition of terms      2. Types of anatomical positions, planes and directions   2. Knowledge of human body organization      1. Body cell      2. Body tissues      3. Body organs      4. Organ system   3. Human cell structures   1.3.1. Cell organelles and their functions   * 1. The human cell cycle      1. Introduction to the cell cycle      2. Phases of the cell cycle   2. Homeostasis      1. Definition      2. Components of homeostasis      3. Importance of homeostasis | 16 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of body fluids and their functions | * 1. Divisions of the body fluid      1. Components of extracellular fluid      2. Components of intracellular fluids   2. Importance of body fluids      1. Importance of extracellular fluid      2. Importance of intracellular fluid   3. Body electrolytes | 6 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of body tissues, membranes and their functions | * 1. Types and structure of tissues      1. Definition of terms      2. Types and structures of tissues   2. Functions of tissues   3. Types and structures of body membranes      1. Definition of terms      2. Types and structures of body membranes   4. Functions of membranes | 10 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of body cavities | * 1. Body cavities      1. Definition of body cavities      2. Types of body cavities         1. Content of dorsal cavities         2. Content of ventral cavity         3. Contents of body cavities   2. Functions of body cavities | 8 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of the human skeletal system and body joints | * 1. Structure of the human skeleton.      1. Structure of axial skeleton      2. Structure of appendicular skeleton   2. Components of the axial skeleton      1. Skull      2. Ribcage      3. Vertebral column   3. Components of the appendicular skeleton      1. Pectoral limbs      2. Pelvic limbs      3. Pectoral and pelvic girdles   4. Joints      1. Classification of joints      2. Types of joints   5.4.2.1 Movable joint  5.4.2.2 Immovable joint   * 1. Disorders of the skeletal system | 14 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of the major muscles of the body and their functions | * 1. Structure of muscles      1. Introduction to Muscles   2. Types of muscles   6.2.1 Skeletal muscles   * + 1. Smooth muscles     2. Cardiac muscles   1. Disorders of the muscles | 8 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of circulatory and lymphatic systems and their functions | * 1. Structure of the circulatory system      1. Anatomy of the heart   2. Blood circulation      1. Blood circulation process   3. Functions of the circulatory system   4. Components of lymphatic system      1. Anatomy of lymphatic system      2. Components of lymphatic system   5. Functions of the lymphatic system   6. Disorders of the circulatory and lymphatic system | 16 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of the endocrine system and its functions | * 1. Components of endocrine system      1. Glands      2. Hormones   2. Glands and their hormones      1. Pituitary gland      2. Thyroid gland      3. Adrenal glands      4. Ovaries      5. Testes   8.3 Hormonal disorders | 8 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of the nervous system special senses and their functions | * 1. Neurons      1. Parts of the neuron and their functions      2. Types of the neuron         1. Sensory neurons   9.1.2.2 Motor neurons  9.1.2.3 Interneurons   * 1. Divisions of the nervous system      1. Central nervous system      2. Peripheral nervous system   2. Nervous reflexes and impulses      1. Voluntary reflexes      2. Involuntary reflexes      3. Disorders of the nervous system   3. Structure and functions of sensory organs      1. Eye      2. Ear      3. Tongue      4. Nose      5. Skin   4. Disorders of the sensory organs | 18 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of the digestive system and its functions | * 1. Digestive system      1. Components of digestive system      2. Functions ofdigestive system   2. Process of digestion   3. Disorders of the digestive system | 8 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of the urinary system and reproductive systems and their functions | * 1. Structure of urinary system      1. Kidney      2. Nephron      3. Ureter      4. Urinary bladder      5. Urethra   2. Process of urine formation   3. Acid base balance      1. Types and control of acid base balance      2. Abnormalities acid base balance   4. Disorders of the urinary system   5. Structure of the human reproductive system      1. Female reproductive system      2. Male reproductive system   6. Fertilization process   7. Disorders of the reproductive system      1. Disorders of male reproductive system      2. Disorders of female reproductive system | 18 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply knowledge of the respiratory system and its functions | * 1. Respiratory system      1. Structure of the respiratory system         1. Nose         2. Trachea         3. Bronchi         4. Lungs         5. Diaphragm      2. Functions of the respiratory system      3. Adaptation of the respiratory system to its function   2. Respiration process   3. Disorders of the respiratory system | 10 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |

**Suggested Methods of Instruction**

* Demonstration
* Discussions
* Direct instruction
* Role play

**Recommended Resources for 25 Trainees**

|  |  |  |
| --- | --- | --- |
| **MATERIALS** | | |
|  | **Quantity** | **Ratio** |
| **Resources** | | |
| Internet connection | **-** | **-** |
| Laptop | 1 | 1:25 |
| Projector | 1 | 1:25 |
| Whiteboard | 1 | 1:25 |
| Flip Charts | - | - |
| Body system charts | 5 | 1:5 |
| Human systems manikins | 5 | 1:5 |
| Human body skeleton | 1 | 1:25 |
| **Tools and Equipment** | | |
| Microscope | 5 | 1:5 |
| Slides (packs) | 5 | 1:5 |
| Stain | - | - |
| **Personal Protective Equipment (PPEs)** | | |
| Laboratory coat | 25 | 1:1 |
| Face masks | 25 | 1:1 |
| Face shields | 25 | 1:1 |
| Closed shoes | 25 | 1:1 |
| Gloves | 25 | 1:1 |

**MATERNAL, INFANT AND YOUNG CHILD NUTRITION**

**UNIT CODE: 0915 454 07A**

**UNIT DURATION: 120 Hours**

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Provide Maternal, Infant and Young Child Nutrition

**Unit Description**

This unit standard specifies the competencies required to provide maternal, infant and young child nutrition. It involves providing nutrition in pregnancy, providing nutrition in lactation, providing infant nutrition and providing young child nutrition

**Summary of Learning Outcomes**

1. Provide nutrition in pregnancy
2. Provide nutrition in lactation
3. Provide infant nutrition
4. Provide young child nutrition

**Learning Outcomes, Content, and Suggested Assessment Methods**

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| 1. Provide nutrition in pregnancy | * 1. Nutritional needs before and during pregnancy      1. Introduction to nutrition before and during pregnancy      2. Importance of preconception nutrition      3. Assessment of nutritional needs before and during pregnancy         1. Anthropometry         2. Biochemical assessments         3. Clinical monitoring         4. Dietary assessments            1. Key nutritional needs            2. Iron            3. Iodine            4. Vitamin D            5. Macronutrients            6. Folic Acid            7. Zinc   2. Pregnancy related complications      1. Introduction to pregnancy related complications      2. Common pregnancy complications         1. Gestational diabetes         2. Ectopic pregnancy         3. Anemia         4. Preterm         5. Depression and anxiety         6. *Pica*         7. Stillbirth         8. Miscarriage         9. Pre-eclampsia   3. Nutrition intervention plan      1. Introduction to nutrition intervention      2. Steps in developing a nutrition plan      3. Types of nutrition intervention         1. Supplementation         2. Diet planning         3. Deworming         4. Education and counselling   4. Carrying out nutrition intervention      1. Introduction to carrying out nutrition intervention      2. Steps in implementing nutrition intervention      3. Tools and resources for implementation   5. Monitoring and evaluating nutrition intervention      1. Introduction to monitoring nutrition intervention      2. Steps in monitoring nutrition intervention      3. Tools and methods for tracking nutrition intervention         1. Anthropometry         2. Biochemical assessments         3. Dietary assessments         4. Clinical monitoring         5. Direct observations      4. Indicators for successful nutrition intervention      5. Challenges in monitoring and evaluating nutrition intervention | 30 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Provide nutrition in lactation | * 1. Nutritional needs in lactation      1. Introduction to nutrition in lactation      2. Importance of nutrition in lactation      3. Assessment of nutritional needs in lactation         1. Anthropometry         2. Biochemical assessments         3. Clinical monitoring         4. Dietary assessments            1. Energy requirements            2. Macronutrients            3. Iron            4. Iodine            5. Vitamin D            6. Folic Acid            7. Zinc            8. Micronutrients influencing milk quality            9. Increased Fluid Needs   2. Breastfeeding related complications      1. Introduction to breastfeeding related complications      2. Common breastfeeding complications      3. Sore/cracked nipples      4. Breast engorgement      5. Mastitis      6. Nipple vasospasm      7. Inverted nipples      8. Flat nipples   3. Introduction to nutrition intervention      1. Steps in developing a nutrition plan      2. Types of nutrition intervention      3. Supplementation      4. Diet planning      5. Deworming      6. Education and counselling   4. Carrying out nutrition intervention      1. Introduction to carrying out nutrition intervention      2. Steps in implementing nutrition intervention      3. Tools and resources for implementation   5. Monitoring and evaluating nutrition intervention      1. Introduction to monitoring nutrition intervention      2. Steps in monitoring nutrition intervention         1. Tools and methods for tracking nutrition intervention         2. Anthropometry         3. Biochemical assessments         4. Dietary assessments         5. Clinical monitoring         6. Direct observations         7. Indicators for successful nutrition intervention         8. Challenges in monitoring and evaluating nutrition intervention | 30 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Provide infant nutrition | * 1. Nutritional needs for infants      1. Introduction to nutrition needs for infants      2. Importance of nutrition in infants      3. Assessment of nutritional needs in infants         1. Anthropometry         2. Biochemical assessments         3. Clinical monitoring         4. Dietary assessments            1. Macronutrients            2. Iron            3. Calcium            4. Vitamin D            5. Zinc            6. Vitamin A            7. Vitamin C            8. Essential Fatty Acids (Docosahexaenoic acid (DHA) and Arachidonic acid (ARA)            9. Fibre            10. Water   2. Infant nutrition related complications      1. Introduction to infant nutrition related complications         1. Common infant nutrition complications            1. Malnutrition            2. Iron deficiency            3. Vitamin D deficiency            4. Overfeeding            5. Inappropriate formula feeding            6. Breast feeding issues            7. Cleft palate            8. Oral thrush            9. Tongue tie            10. Infections and contaminations            11. Dehydration            12. Food allergies and intolerances            13. Failure to thrive   3. Nutrition intervention plan      1. Introduction to nutrition intervention      2. Steps in developing a nutrition plan      3. Types of nutrition intervention         1. Breast feeding promotion         2. Formula feeding guidelines         3. Complementary feeding introduction         4. Supplementation         5. Dehydration management         6. Allergies and food intolerances management         7. Diet planning         8. Deworming         9. Education and counselling for mothers   4. Carrying out nutrition intervention      1. Introduction to carrying out nutrition intervention      2. Steps in implementing nutrition intervention      3. Tools and resources for implementation      4. Monitoring and evaluating nutrition intervention      5. Introduction to monitoring nutrition intervention      6. Steps in monitoring nutrition intervention      7. Tools and methods for tracking nutrition intervention      8. Growth and development monitoring         1. Anthropometry         2. Biochemical assessment         3. Clinical monitoring         4. Dietary assessment         5. Direct observation         6. Indicators for successful nutrition intervention         7. Challenges in monitoring and evaluating nutrition intervention | 30 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Provide young child nutrition | * 1. Nutritional needs for young child      1. Introduction to nutrition needs for young child      2. Importance of nutrition in young child      3. Assessment of nutritional needs in young children         1. Anthropometry         2. Biochemical assessments         3. Clinical monitoring         4. Dietary assessments            1. Energy needs            2. Macronutrient needs            3. Vitamin A            4. Vitamin D            5. Vitamin C            6. B vitamins            7. Calcium            8. Iron            9. Zinc            10. Fiber            11. Water   2. Young child nutrition related complications      1. Introduction to young child nutrition related complications      2. Common young child nutrition complications         1. Malnutrition         2. Micronutrient deficiency         3. Overnutrition and obesity         4. Food allergies and intolerances         5. Infections and contaminations         6. Developmental delays         7. Dental issues   3. Nutrition intervention plan      1. Introduction to nutrition intervention      2. Steps in developing a nutrition plan      3. Types of nutrition intervention         1. Formula feeding guidelines         2. Complementary feeding introduction         3. Supplementation         4. Breastfeeding promotion         5. Emergency nutrition intervention            1. Therapeutic feeding            2. Disease management (diarrhea, infections)         6. Dehydration management            1. Allergies and food intolerances management            2. Diet planning            3. Deworming            4. Education and counselling   4. Carrying out nutrition intervention      1. Introduction to carrying out nutrition intervention      2. Steps in implementing nutrition intervention      3. Tools and resources for implementation   5. Monitoring and evaluating nutrition intervention      1. Introduction to monitoring nutrition intervention      2. Steps in monitoring nutrition intervention      3. Tools and methods for tracking nutrition intervention      4. Indicators for successful nutrition intervention      5. Challenges in monitoring and evaluating nutrition intervention | 30 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |

**Suggested Methods of Instruction**

* Demonstration
* Practical
* Discussions
* Direct instruction
* Role play

**RECOMMENDED RESOURCES**

|  |  |  |  |
| --- | --- | --- | --- |
| **Materials** | | | |
| **No** | **Type of material** | **Quantity** | **Ratio** |
| 1 | Internet connection | - | - |
| 2 | Assorted flash cards | - | - |
| 3 | Flip charts | - | - |
| 4 | Whiteboard markers | - | - |
| **Tools and Equipment** | | | |
| 1 | Laptops | 1 | 1:25 |
| 2 | Whiteboards | 1 | 1:25 |
| 3 | Projectors | 1 | 1:25 |
| 4 | Weighing Scale | 5 | 1:5 |
| 5 | Height/Stadiometers | 5 | 1:5 |
| 6 | Measuring Tape | 5 | 1:5 |
| 7 | Calipers | 5 | 1:5 |
| 8 | Body Mass Index (BMI) wheel | 5 | 1:5 |
| 9 | Glucometer | 5 | 1:5 |
| 10 | Blood Pressure Machine | 5 | 1:5 |
| 11 | Food Frequency Questionnaires (FFQs) | 25 | 1:1 |
| 12 | 24-Hour Dietary Recall | 25 | 1:1 |
| 13 | Food Diaries | 25 | 1:1 |
| 15 | Food Models | 5 | 1:5 |
| 16 | Baby dummies | 1 | 1:25 |
| 17 | Breast model | 1 | 1:25 |
| **Personal Protective Equipment** | | | |
| 1 | Dust coat or gown | 25 | 1:1 |
| 2 | Closed shoes | 25 | 1:1 |
| 3 | Gloves | 25 | 1:1 |
| 4 | Face masks | 25 | 1:1 |

**DIETETIC OPERATIONS**

**UNIT CODE: 0915 454 08A**

**UNIT DURATION: 120 Hours**

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Conduct Dietetic Operations

**Unit Description**

This unit describes competencies required to conduct dietetic operations. It involves assessing client’s mode of feeding, carrying out diet modification, administration of enteral nutrition, parenteral nutrition and prescription of nutrient supplement, functional foods and nutraceuticals, managing drug-nutrient interactions. It also involves managing nutrition in burns.

**SUMMARY OF LEARNING OUTCOMES**

1. Assess client’s mode of feeding,
2. Carry out diet modification,
3. Administer enteral nutrition,
4. Administer parenteral nutrition,
5. Prescribe nutrient supplement, functional foods and nutraceuticals
6. Manage drug-nutrient interaction
7. Manage Nutrition in Burns

**Learning Outcomes, Content, and Suggested Assessment Methods**

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| 1. Assess client’s mode of feeding, | * 1. Assessment of Gastrointestinal Tract (GIT) functionality      1. Introduction to GIT functionality      2. Oral assessment      3. Bowel Habits      4. Abdominal Pain      5. Digestive Symptoms   2. Mode of feeding determination.      1. Oral feeding   1.2.1.1 Oral feeding complications   * + 1. Enteral feeding        1. Feeding routes           1. Nasogastric           2. Nasojejunal           3. Nasodeudenal,           4. Esophagostomy           5. Gastrostomy           6. Jejunostomy   1.2.2.2 Enteral feeding complication   * + 1. Parenteral feeding        1. Peripheral parenteral nutrition (PPN)        2. Central parenteral nutrition        3. Complications of parenteral nutrition   1. Documentation of mode feeding | 12 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Carry out diet modification | * 1. Dietary needs assessment      1. Macronutrients      2. Micronutrients   2. Diet modification      1. Definition of terms         1. Diet         2. Modification      2. Principles of diet modification      3. Factors influencing diet modification      4. Classification of diet modification         1. Quantitative modification         2. Qualitative modification      5. Types of diet modification         1. Low-Calorie Diet         2. High-Protein Diet         3. High protein high calorie diet         4. Low-Carbohydrate Diet         5. Low-Fat Diet         6. Mediterranean Diet.         7. DASH Diet         8. Gluten-Free Diet         9. Dairy-Free Diet      6. Challenges of diet modification   3. Documentation and dissemination of diet modification | 16 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Administer enteral nutrition | * 1. PPEs      1. Types of PPEs         1. Mask         2. Dust coat or gown         3. Closed shoes         4. Gloves         5. Head cover         6. Rubber boots   2. Enteral nutrition routes      1. Indicators of enteral nutrition      2. Mechanical routes         1. Nasogastric (NG) Tube         2. Nasojejunal         3. Nasodeudenal      3. Surgical routes         1. Gastrostomy Tube (G-Tube)         2. Jejunostomy Tube (J-Tube)         3. esophagostomy   3. Enteral nutrition feeds   3.3.1 Standard Formulas:  3.3.1.1 Polymeric Formulas  3.3. 1.2 Elemental Formulas:   * + 1. Specialty Formulas:        1. Fiber-Enriched Formulas        2. Renal Formulas        3. Pulmonary Formulas        4. Diabetes Formulas.   1. Enteral feed administration   3.4.1 Enteral feeding methods  3.4.1.1 continuous drip  3.4.1.2 intermitted  3.4.1.3 bolus   * 1. Monitoring and evaluation of enteral nutrition feeds tolerance   2. Documentation and dissemination of enteral feeds administration | 22 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Administer parenteral nutrition | * 1. Parenteral nutrition routes      1. Indicators of parenteral nutrition      2. Central/Total Venous route      3. Peripheral Venous route   2. Prescription of parenteral formula      1. Parenteral nutrition Formula Composition:         1. Macro nutrients            1. Carbohydrates:            2. Protein            3. Lipids         2. Micronutrients            1. Electrolytes: Sodium, potassium, chloride, calcium, magnesium, and phosphorus            2. Trace Elements: Zinc, copper, manganese, chromium, selenium, molybdenum, and iodine.            3. Vitamins.   3. Administration of parenteral nutrition   4. Complications of parenteral nutrition   4.4.1 Metabolic complications  4.4.2 Physical/mechanical complications  4.5 Documentations and dissemination of parenteral formula administration | 22 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Prescribe nutrient supplement, functional foods and nutraceuticals | * 1. Nutrient supplements, functional foods and nutraceuticals      1. Definition of terms         1. Supplement         2. Functional food         3. Nutraceutical         4. Types of supplements         5. Types of functional foods         6. Types of nutraceuticals   2. Prescription of supplements, functional foods and nutraceuticals.   3. Documentation and dissemination of supplements, functional foods and nutraceuticals prescription. | 10 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Manage drug-nutrient interaction | * 1. Review Medication regimen of client      1. Drug-nutrient interaction      2. Nutrient-nutrient interaction      3. Drug-drug interaction   2. Identification of drug-nutrient interaction is   6.2.1Common Drug-Nutrient Interactions:   * + - 1. Warfarin and Vitamin K-rich foods       2. Antihypertensive medications and potassium-rich food       3. Proton pump inhibitors and vitamin B12 absorption       4. Tetracycline antibiotics and calcium-rich foods   1. Management of Specific drug-nutrient interaction   2. Documentation and dissemination of specific drug-nutrient interaction. | 12 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Manage nutrition in Burns | * 1. Definition of terms   2. Assessment of burn injury      1. Burn injury assessment      2. Nutrition assessment   3. Develop specific diet plan      1. Calculation of specific nutrient requirement.      2. Rule of 9s and Curreri formula   4. Implementation of the diet plan   5. Monitor and document nutrition intervention progress Evaluate nutrition intervention outcome | 26 | * Practical * Project * Written tests * Portfolio of evidence * Oral questioning * Third party report |

**Suggested Methods of Instruction**

* Demonstration
* Practical
* Discussions
* Direct instruction
* Role play

**Recommended Resources for 25 Trainees**

|  |  |  |
| --- | --- | --- |
| **Tools and Equipment** | **Quantity** | **Ratio** |
| 1. Laptops | 1 | 1:25 |
| 2.Internet connections | - | - |
| 3.Projectors | 1 | 1:25 |
| **Types of Materials** | | |
| 4.Flash cards | 5boxes | 1:5 |
| 5.Whiteboards | 1 | 1:25 |
| 6.Rolls flip charts | 5 | 1:5 |
| 7.Whiteboard markers | 5 | 1:5 |

|  |  |  |
| --- | --- | --- |
| **Personal Protective Equipment** | **Quantity** | **Ratio** |
| 8.Dust coat or gown | 25 | 1:1 |
| 9.Closed shoes | 25 pairs | 1:1 |
| 10.Gloves | 26 pairs | 1:1 |
| 11.Face protection goggles or face shiels | 25 | 1:1 |
| 12.Head cover | 25 | 1:1 |
| **Tools and equipment** | | |
| 13. Nasogastric tubes | 8 | 1:3 |
| 14. Parenteral giving set | 1 | 1:25 |
| 15. Manikin | 2 | 1:12 |
| 16. Parenteral formulas | 1 | 1:25 |
| 17. Parenteral bags | 1 | 1:25 |

# **MODULE III**

# **WORK ETHICS AND PRACTICES**

**UNIT CODE:** **0417 454 09A**

**UNIT DURATION: 40 Hours**

**Relationship with Occupational Standards**

This unit addresses the Unit of Competency: Apply Work Ethics and Practices.

**Unit Description**

This unit covers competencies required to effectively apply work ethics and practices. It involves the ability to conduct self-management, promote ethical work practices and values, promote teamwork, maintain professional and personal development, apply problem-solving skills and promote customer care.

**Summary of Learning Outcomes**

1. Apply self-management skills
2. Promote ethical practices and values
3. Promote Teamwork
4. Maintain professional and personal development
5. Apply Problem-solving skills
6. Promote Customer care.

**Learning Outcomes, Content, and Suggested Assessment Methods**

| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| --- | --- | --- | --- |
| 1. Apply self-management skills | * 1. Self-awareness   2. Formulating personal vision, mission, and goals   3. Healthy lifestyle practices   4. Strategies for overcoming work challenges   5. Emotional intelligence   6. Coping with Work Stress.   7. Assertiveness versus aggressiveness and passiveness      1. Developing and maintaining high self-esteem      2. Developing and maintaining positive self-image      3. Time management      4. Setting performance targets      5. Monitoring and evaluating performance targets | 10 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Promote ethical work practices and values | * 1. Integrity   2. Core Values, ethics and beliefs   3. Patriotism   4. Professionalism   5. Organizational codes of conduct   6. Industry policies and procedures | 4 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Promote teamwork | * 1. Types of teams   2. Team building      1. Individual responsibilities in a team      2. Determination of team roles and objectives      3. Team parameters and relationships      4. Benefits of teamwork      5. Qualities of a team player      6. Leading a team      7. Team performance and evaluation   3. Conflicts and conflict resolution   4. Gender and diversity mainstreaming   5. Developing Healthy workplace relationships   6. Adaptability and flexibility   7. Coaching and mentoring skills | 10 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Maintain professional and personal development | * 1. Personal vs professional development and growth   2. Avenues for professional growth   3. Recognizing career advancement   4. Training and career opportunities      1. Assessing training needs      2. Mobilizing training resources   5. Licenses and certifications for professional growth and development   6. Pursuing personal and organizational goals   7. Managing work priorities and commitments   8. Dynamism and on-the-job learning | 10 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply problem-solving skills | * 1. Causes of problems   2. Methods of solving problems   3. Problem-solving process   4. Decision making   5. Creative thinking and critical thinking process in development of innovative and practical solutions | 4 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Promote customer care | * 1. Identifying customer needs   2. Qualities of good customer service   3. Customer feedback methods   4. Resolving customer concerns   5. Customer outreach programs   6. Customer retention | 2 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |

**Suggested Methods of Instruction**

* Instructor lead facilitation of theory using active learning strategies.
* Demonstrations
* Simulation/Role play
* Group Discussion
* Presentations
* Projects
* Case studies
* Assignments

**Recommended Resources for 25Trainees**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/No.** | **Category/Item** | **Description/Specifications** | **Quantity** | **Recommended Ratio (Item: Trainee)** |
| **A** | **Learning Materials** | | | |
|  | PowerPoint Presentations | For trainer’s use, covering course content and practical applications | 1 | 1:25 |
|  | Projector | Functional projector for displaying content during presentations | 1 | 1:25 |
|  | Media Resources | This include but are not limited to:   * Video Clips * Audio Clips * TV Sets * Radio Sets |  |  |
|  | White board | Quality whiteboard of approximately 6 ft by 3 ft for writing during theory instruction | 1 | 1:25 |
| **B** | **Learning Facilities & Infrastructure** | | | |
|  | Lecture/Theory Room  /Learning Resource  Area\* | Spacious, equipped with projectors and Seats for 25trainees, approximately 45 sqm (5 m x 9 m) | 1 | 1:25 |
|  | Computer Laboratory | Equipped with at least 25 functional computers with internet connectivity and the following software:   * + - Windows/ Linux/ Macintosh Operating System     - Microsoft Office Software     - Google Workspace Account     - Antivirus Software | 25 | 1:1 |
|  |  |  |  |  |
| **C** | **Consumable Materials** | | |  |
|  | Printing Papers | A4 and A3 Printing papers suitable for the task | Enough |  |
|  | Flashcards | For carrying out various activities by trainees | Enough |  |
|  | Charts | Sufficient for group work activities and displaying | Enough |  |
|  | Whiteboard Marker Pens | Dry-erase markers for trainer’s use. Assorted colors | Enough |  |

**FIRST AID SERVICES**

**UNIT CODE: 0915 454 10A**

**UNIT DESCRIPTION: 60 Hours**

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Provide First Aid Services.

**Unit Description**

This unit specifies the competencies required to provide first aid services. It involves assessing the incident environment, assessing nature and extent of accident and performing first aid.

**Summary of Learning Outcomes**

1. Assess incident environment
2. Assess nature and extent of accident
3. Perform first aid

**Learning Outcomes, Content, and Suggested Assessment Methods**

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| 1.Assess incident environment | 1. Incident environment    * 1. Kitchen      2. Laboratory      3. Classroom      4. Field      5. Recreation areas   1.2 PPEs   * + 1. Mask     2. Dust coat or gown     3. Closed shoes     4. Gloves     5. Kitchen towels     6. Face protection     7. Goggles or face shield     8. Head cover,     9. Rubber boots   1. First Aid methodsand procedures      1. ABCs of life (Airways, Breathing and Circulation)      2. CPR (cardiopulmonary ressucitation)      3. Automated External defibrillator (AED) | 20 | * Practical * Portfolio of Evidence * Oral assessment * Written assessment * Third party report |
| 2.Assess nature and extent of accident | * 1. Casualty safety   2. Nature of injury and /or illness      1. Choking      2. Burns      3. Scalds      4. Trauma      5. Nose bleeding      6. Cuts      7. Fractures      8. Drowning      9. Poisoning      10. Fainting      11. Fever      12. Asthmatic attack      13. Epileptic seizures   3. Extent of accident   2.3.1 Mild  2.3.2 Moderate  2.3.3 Severe   * + 1. Acute     2. Chronic   1. Tools, equipment, materials and supplies.      1. First Aid kit      2. Stretcher      3. Gloves      4. Spine board      5. Sheets      6. Splints      7. Mask      8. Goggles      9. Apron/Gown/coverall/jump s      10. Air ways/ adjuncts      11. Ambu-bag      12. Trolley | 20 | * Practical * Portfolio of Evidence * Oral assessment * Written assessment * Third party report |
| 3.Perform First aid | * 1. First aid procedures   2. Monitoring casualty’s condition      1. Mild      2. Moderate      3. Severe      4. Acute      5. Chronic   3. Casualty progress report      1. Document casualty progress report      2. Disseminate casualty progress report   4. Winding up first aid intervention      1. Remove any hazardous materials      2. Secure equipment and supplies      3. Remove any unnecessary items      4. Reassure the casualty | 20 | * Practical * Portfolio of Evidence * Oral assessment * Written assessment * Third party report |

**Suggested Methods of Instruction**

* Practical
* Demonstration
* Direct instruction
* Role play
* Audio visuals aids

**Recommended Resources for 25 Trainees**

**Materials**

|  |  |  |  |
| --- | --- | --- | --- |
| **S No.** | **Item** | **Quantity** | **Ratio** |
|  | Laptops | 1 | 1:25 |
|  | Projector | 1 | 1:25 |
|  | Assorted flash cards | - | - |
|  | Whiteboard | 1 | 1:25 |
|  | Flip Charts | - | - |
|  | Assorted whiteboard markers | - | - |

**Tools and equipment**

|  |  |  |  |
| --- | --- | --- | --- |
| **S No.** | **Tools** | **Quantity** | **Ratio** |
|  | Blood Glucose Meters | 25 | 1:25 |
|  | Blood Pressure Monitors | 5 | 1:5 |
|  | First aid manual | 5 | 1:5 |
|  | Stretchers | 5 | 1:5 |
|  | Emergency blanket | 5 | 1:5 |
|  | Adhesive bandages | 25 | 1:25 |
|  | **Equipment** |  |  |
|  | First aid kits/box | 25 | 1:1 |
|  | AED | 1 | 1:25 |
|  | Manikins | 5 | 1:5 |

**PPEs**

|  |  |  |  |
| --- | --- | --- | --- |
| **S No.** | **Item** | **Quantity** | **Ratio** |
|  | Dust coat | 25 | 1:1 |
|  | Closed shoes | 25 | 1:1 |
|  | Gloves | 25 | 1:1 |
|  | Face protection Goggles or face shield, gloves | 25 | 1:1 |
|  | Head cover, | 25 | 1:1 |

**MANAGEMENT OF SPECIALIZED MEALS**

**UNIT CODE: 0915 454 11A**

**UNIT DURATION: 160 Hours**

**Unit Description**

This unit specifies the competencies required to plan and manage specialized meals. It includes assessing client’s nutritional needs, preparing client’s diet plan, preparing client’s meal plan and preparing specialized meals.

**Summary of Learning Outcomes**

1. Assess client nutritional needs
2. Prepare client diet plan
3. Prepare client meal plan
4. Prepare specialized meals

**Learning Outcomes, Content, and Suggested Assessment Methods**

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| 1. Assess client nutritional needs | * 1. Definition of terms      1. Meal      2. Meal plan      3. Specialized meal      4. Menu      5. Recipe   2. Categories of life stages      1. Pregnancy      2. Infancy      3. Childhood      4. Adolescence      5. Adulthood      6. Elderly   3. Client’s nutrition need      1. Macronutrients   1.3.1.1 carbohydrates  1.3.1.2 Proteins  1.3.1.3Lipids   * + 1. Micronutrients        1. Vitamins        2. Minerals   1. Documentation of client’s nutrition need | 30 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 2.Prepare client’s diet plan | * 1. Development of client’s dietary goal      1. Factors to consider when planning meals         1. Biological determinants         2. Economic and physical determinants         3. Social determinants      2. Quality and quantity control in meal planning   2.2 Diet planning principles  2.2.1 Adequacy  2.2.2 Balance  2.2.3Calorie Control  2.2.4 Density  2.2.5Moderation   * + 1. Variety   1. Diet planning tools.      1. Food composition table      2. Food exchange list      3. Food guide pyramid      4. Reference Standards Mask   2. Development of Client’s diet plan. | 30 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 3.Prepare client meal plan | * 1. Preparing a menu      1. Functions of a menu      2. Factors to consider when preparing a menu      3. Types of menus         1. A la carte         2. Table d’ hote   2. Components of a recipe      1. Dish name      2. Quantity      3. Ingredients      4. Equipment and materials      5. Order list      6. Number of servings      7. Cost   3. Preparing food order list   4. Menu costing   5. Development of work schedule | 56 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 4.Prepare specialized meals | * 1. PPEs for food handling      1. Kitchen gloves      2. Hairnets and caps      3. Aprons      4. Closed flat leather shoes      5. Kitchen towels   2. Preparation of ingredients   3. Production of specialized meal   4. Waste management | 44 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |

**Suggested Methods of Instruction**

* Demonstration
* Practical
* Discussions
* Direct instruction
* Role play

**Recommended Resources for 25 Trainees**

|  |  |  |
| --- | --- | --- |
| **Item** | **Quantity** | **Ratio** |
| Laptop | 1 | 1:25 |
| Internet connection | - | - |
| Projector | 1 | 1:25 |
| Whiteboard | 1 | 1:25 |
| Flip chart | 1 | 1:25 |
| Whiteboard markers | 1 | 1:25 |

**Tools and Equipment for 25 trainees**

|  |  |  |
| --- | --- | --- |
| **ITEM** | **QUANTITY** | **Ratio** |
| Weighing scale | 5 | 1:5 |
| Refrigerator | 1 | 1:25 |
| Assorted knives | 15 | 1:2 |
| Assorted spoons | 25 | 1:1 |
| Assorted folks | 25 | 1:1 |
| Cooking pots | 15 | 1:2 |
| Cooking pans | 5 | 1:5 |
| Platters | 15 | 1:2 |
| Glasses | 16 | 1:2 |
| Measuring cups | 5 sets | 1:5 |
| Food Exchange list | 5 | 1:5 |
| Food composition table | 5 | 1:5 |
| Food Frequency questionnaire | 5 | 1:5 |
| 24-hour dietary Recall | 5 | 1:5 |
| Food Diaries | 5 | 1:5 |
| Food models and visual Aids | 5 | 1:5 |
| Cooker | 5 | 1:5 |
| **PPEs** | | |
| Dust coat or gown | 25 | 1:1 |
| Closed flat leather shoes | 25 pairs | 1:1 |
| Gloves | 25 pairs | 1:1 |
| Kitchen towels | 25 pairs | 1:1 |
| Head cover | 25 | 1:1 |

**NUTRITION IN COMMUNICABLE AND NON-COMMUNICABLE DISEASES**

**UNIT CODE: 0915 454 12A**

**UNIT DURATION: 140 Hours**

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Provide nutrition in communicable and non-communicable diseases

**Unit Description**

This unit describes competencies required to provide nutrition in communicable and non-communicable diseases. It involves carrying out client’s dietary assessment, formulating individualized feeding care plan, carrying out feeding care plan interventions and conducting continuous dietary monitoring.

**Summary of Learning Outcomes**

1. Carry out client’s dietary assessment
2. Formulate individualized feeding care plan
3. Carry out feeding care plan interventions
4. Conduct continuous dietary monitoring.

**Learning Outcomes, Content, and Suggested Assessment Methods**

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| 1. Carry out client’s dietary need assessment | * 1. PPEs      1. Definition of terms         1. Nutrition         2. Communicable diseases         3. Non communicable diseases      2. Types of PPEs         1. Dust coat         2. Face mask         3. Hand gloves         4. Closed shoes      3. Importance of PPEs   2. Communicable disease      1. The Communicable disease transmission cycle      2. Communicable disease transmission route      3. Types of communicable diseases         1. Oral faecal transmitted disease            1. Cholera   Mode of transmission  Signs and symptoms  Prevention and control  Nutritional management of Cholera   * + - * 1. Typhoid   Mode of transmission  Signs and symptoms  Prevention and control  Nutritional management of typhoid   * + - * 1. Diarrheal diseases   Causative agents  Mode of transmission  Types of diarrhoea  Prevention and control  Nutritional management of diarrheal disease   * + - 1. Air-borne diseases          1. Tuberculosis   Mode of transmission  Types of Tuberculosis  Signs and symptoms  Common complications of Tuberculosis  Prevention and control  Nutritional management of tuberculosis   * + - * 1. Pneumococcal pneumonia   Causes  Mode of transmission  Signs and symptoms  Prevention and control  Nutritional management of tuberculosis   * + - 1. Vector-borne diseases          1. Malaria   Causes  Mode of transmission  Signs and symptoms  Prevention and control  Nutritional management of Malaria   * 1. Non- communicable Diseases      + 1. Rheumatoid arthritis (RA)           1. Causes of RA           2. Effects of RA on the body           3. Signs and symptoms of RA           4. Nutritional management of RA        2. Osteoarthritis           1. Causes of Osteoarthritis           2. Signs and symptoms of Osteoarthritis           3. Nutritional management of Osteoarthritis        3. Gout           1. Signs and symptoms of Gout           2. Causes of Gout           3. Risk factors of Gout           4. Complications of Gout           5. Nutritional management of Gout        4. Osteoporosis           1. Causes of Osteoporosis           2. Signs and symptoms of Osteoporosis           3. Nutritional management of Osteoporosis        5. Obesity           1. Causes of Obesity           2. Risk factors of Obesity           3. Complications of Obesity           4. Nutritional management of Obesity        6. Diabetes           1. Types of diabetes           2. Signs and symptoms of diabetes           3. Causes of diabetes           4. Risk factors of diabetes           5. Complications of diabetes           6. Component of diabetes management plan           7. Nutritional management of diabetes        7. Cancer           1. Types of cancer           2. Types of cancer treatment           3. Side effects of cancer treatment           4. Nutritional management of Cancer        8. Blood pressure           1. Types of blood pressure           2. Risk factors of High blood pressure           3. Complications of blood pressure           4. Nutritional management of High blood pressure        9. Heart disease           1. Types of heart diseases           2. Causes of heart disease           3. Risk factors of heart disease           4. Nutritional management of heart diseases   2. Nutrition diagnostic statement for the client      1. Problem      2. Etiology      3. Signs and symptoms | 50 | * Practical * Project * Portfolio of Evidence * Oral questions * Written assessment * Third party report |
| 1. Formulate individualized feeding care plan | * 1. Nutritional need      1. Caloric needs      2. Micronutrient needs      3. Macronutrient needs   2. Development of specific feeding care plan      1. Factors to consider when developing specific feeding care plan      2. Steps of developing specific feeding care plan      3. Types of specific feeding care plan         1. Supplementation         2. Nutrition education and counselling         3. Fortification         4. Diet modification   3. Collaborative care between nutritionist and other healthcare experts      1. Roles of nutrition support professional         1. Physician         2. Nurses         3. Pharmacist         4. Dietician   4. Documentation of Individualized care plan | 36 | * Practical * Project * Portfolio of Evidence * Oral questions * Written assessment * Third party report |
| 1. Carry out feeding care plan interventions | * 1. Dietary counselling      1. Dietary counselling in communicable diseases         1. Nutrition education and counselling         2. Supplementation         3. Fortification         4. Diet modification      2. Dietary counselling in non-communicable diseases         1. Nutrition education         2. Supplementation         3. Fortification         4. Diet modification   2. Safe food handling procedures      1. Importance of safe food handling procedures         1. Personal hygiene         2. Food storage         3. Individualized food preparation         4. Serving and consumption      2. Types of safe food handling procedures   3. Documentation of Client feeding plan intervention | 24 | * Practical * Project * Portfolio of Evidence * Oral questions * Written assessment * Third party report |
| 1. Conduct continuous dietary monitoring. | * 1. Reassessment of the client medical and nutritional status   2. Reintervention   3. Report dissemination   4. Nutritional management, discharge and referrals | 30 | * Practical * Project * Portfolio of Evidence * Oral questions * Written assessment * Third party report |

**Suggested Methods of Instruction**

* Demonstration
* Practical
* Discussions
* Direct instruction
* Simulation

**Recommended Resources for 25 Trainees**

|  |  |  |
| --- | --- | --- |
| **MATERIALS** | | |
| **Type of material** | **Quantity** | **Ratio** |
| * + - 1. Flip charts | - | - |
| * + - 1. Whiteboard marker | - | - |
| **TOOLS AND EQUIPMENT** | | |
| 1. White board | 1 | 1:25 |
| 1. Laptop | 1 | 1:25 |
| 1. Projector | 1 | 1:25 |
| 1. Weighing Scale | 5 | 1:5 |
| 1. Height board | 5 | 1:5 |
| 1. Length board | 5 | 1:5 |
| 1. Measuring Tape | 5 | 1:5 |
| 1. MUAC tape | 25 | 1:1 |
| 1. Skin fold thinness callipers | 5 | 1:5 |
| 1. Body Mass Index (BMI) wheel | 5 | 1:5 |
| 1. Food Frequency Questionnaires (FFQs) | 5 | 1:5 |
| 1. 24-Hour Dietary Recall | 5 | 1:5 |
| 1. Food Diaries | 5 | 1:5 |
| 1. Food Models and Visual Aids | 5 | 1:5 |
| **PERSONAL PROTECTIVE EQUIPMENT(PPEs)** | | |
| 1. Dust coat | 25 | 1:1 |
| 1. Closed leather shoes | 25 | 1:1 |

# **MODULE IV**

**ENTREPRENEURIAL SKILLS**

**UNIT CODE: 0413 454 13A**

**UNIT DUARTION: 40 Hours**

**Relationship with occupational standards**

This unit addresses the unit of competency: Apply Entrepreneurial Skills.

**Unit Description:**

This unit covers the competencies required to demonstrate an understanding of entrepreneurship. It involves demonstrating an understanding of financial literacy, applying entrepreneurial concepts identifying entrepreneurship opportunities, applying business legal aspects, and developing business innovative strategies and business plans.

**Summary of Learning Outcomes**

1. Apply financial literacy
2. Apply the entrepreneurial concept
3. Identify entrepreneurship opportunities
4. Apply business legal aspects
5. Innovate Business Strategies
6. Develop business plan

**Learning Outcomes, Content and Suggested Assessment Methods**

| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| --- | --- | --- | --- |
| 1. Apply financial literacy | * 1. Personal finance management   2. Balancing between needs and wants   3. Budget Preparation   4. Saving management   5. Factors to consider when deciding where to save   6. Debt management   7. Factors to consider before taking a loan   8. Investment decisions   9. Types of investments   10. Factors to consider when investing money   11. Insurance services   12. insurance products available in the market   13. Insurable risks | 6 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply entrepreneurial concept | * 1. Difference between Entrepreneurs and Business persons   2. Types of entrepreneurs   3. Ways of becoming an entrepreneur   4. Characteristics of Entrepreneurs   5. salaried employment and self-employment   6. Requirements for entry into self-employment   7. Roles of an Entrepreneur in an enterprise   8. Contributions of Entrepreneurship | 4 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Identify entrepreneurship opportunities | * 1. Sources of business ideas   2. Factors to consider when evaluating business opportunity   3. Business life cycle | 6 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Apply business legal aspects | * 1. Forms of business ownership   2. Business registration and licensing processing   3. Types of contracts and agreements   4. Employment laws   5. Taxation laws | 6 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Innovate business Strategies | * 1. Creativity in business   2. Innovative business strategies   3. Entrepreneurial Linkages   4. ICT in business growth and development | 6 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 1. Develop Business Plan | * 1. Business description   2. Marketing plan   3. Organizational/Management   4. plan   5. Production/operation plan   6. Financial plan   7. Executive summary   8. Business plan presentation   9. Business idea incubation | 12 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |

**Suggested Methods of Instruction**

* Direct instruction with active learning strategies
* Project (Business plan)
* Case studies
* Field trips
* Group Discussions
* Demonstration
* Question and answer
* Problem solving
* Experiential
* Team training
* Guest speakers

**Recommended Resources for 25Trainees**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/No.** | **Category/Item** | **Description/Specifications** | **Quantity** | **Recommended Ratio (Item: Trainee)** |
| **A** | **Learning Materials** |  |  |  |
|  | PowerPoint Presentations | For trainer’s use, covering course content and practical applications | 1 | 1:25 |
|  | Projector | Functional projector for displaying content during presentations | 1 | 1:25 |
|  | Media Resources | These include but are not limited to:   * Video Clips * Audio Clips * TV Sets * Radio Sets * Newspapers * Business Journals * Case studies |  |  |
|  | Templates | Templates for creating various documents e.g. business plan, invoices etc. | 25 | 1:1 |
|  | White board | Quality whiteboard of approximately 6 ft by 3 ft for writing during theory instruction | 1 | 1:25 |
| **B** | **Learning Facilities & Infrastructure** |  |  |  |
|  | Lecture/Theory Room  /Learning Resource  Area\* | Spacious, equipped with projectors and Seats for 25trainees, approximately 45 sqm (5 m x 9 m) | 1 | 1:25 |
|  | Computer Laboratory | Equipped with at least 15 functional computers with internet connectivity and the following software:   * + - Windows/ Linux/ Macintosh Operating System     - Microsoft Office Software     - Google Workspace Account     - Antivirus Software | 1 | 1:1 |
|  |  |  |  |  |
| **C** | **Consumable Materials** |  |  |  |
|  | Writing Materials | Writing materials for note taking | Enough |  |
|  | Flashcards | For carrying out various activities by trainees | Enough |  |
|  | Charts | Sufficient for group work activities and displaying | Enough |  |
|  | Whiteboard Marker Pens | Dry-erase markers for trainers use. Assorted colours | Enough |  |

**PRINCIPLES OF FOOD PROCESSING AND PRESERVATION**

**UNIT CODE: 0721 454 14A**

**UNIT DURATION: 100 Hours**

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Apply principles of food processing and preservation.

**Unit Description**

This unit describes competencies required to apply principles of food processing, preservation, safety and hygiene. It involves applying food processing, applying principles of food preservation, applying knowledge of food micro-organisms and applying food quality, safety and hygiene.

**Summary of Learning Outcomes**

1. Apply principles of food processing

2. Apply principles of food preservation

3. Apply knowledge of food micro-organisms

4. Apply knowledge in food quality, safety, and hygiene

**Learning Outcomes, Content, and Suggested Assessment Methods**

| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| --- | --- | --- | --- |
| * 1. Apply principles of food processing | * 1. Definition of terms      1. Food      2. Processing      3. Food processing      4. Food preservation.      5. Food safety and hygiene   2. Importance of food processing   3. Importance of food preservation   4. Importance of food safety and hygiene   5. Principles of food processing      1. Prevention of microbial growth      2. Control of enzyme activity      3. Oxygen control      4. Moisture control      5. Use of preservatives   6. Factors causing food deterioration/Spoilage   7. Routes of microbial contamination of food   8. Methods of food processing      1. Mechanical methods      2. Thermal processing      3. Freezing and refrigeration   9. Effects of food processing on food and nutrition quality | 20 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| * 1. Apply principles of food preservation. | * 1. Principles of food preservation      1. Controlling of micro-organisms      2. Controlling self-decomposition.      3. Preventing or delaying chemical reactions of the food      4. Controlling insects, rodents, birds, and other physical cause of food spoilage   2. Methods of food preservation      1. Traditional         1. Sun drying         2. Salting         3. Smoking      2. Modern         1. Thermal processing            1. Pasteurization            2. Sterilization.            3. Blanching            4. Canning         2. Low temperature preservation            1. Freezing            2. Refrigeration            3. Chilling         3. Fermentation         4. Food packaging   3. Effects of food preservation techniques on food and nutrition quality | 20 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 3. Apply knowledge of food microorganisms | * 1. Food micro- organisms      1. Definition of terms         1. Microorganisms         2. Food microorganisms      2. Types of food microorganisms         1. Bacteria         2. Mould         3. Yeast      3. Factors affecting the growth of microorganisms in foods.   2. Significance of food micro- organisms   3. Analysis of food micro- organism   4. Ways of controlling food micro- organism control | 30 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |
| 4. Apply knowledge of food quality safety and hygiene | * 1. Food quality control   2. Food safety, and hygiene practices      1. Pest control      2. Personal hygiene      3. Safe food storage   3. Hazard Analysis and Critical Control Point (HACCP) Principles      1. Hazard analysis      2. Critical control point Identifications      3. Establishment of critical limit      4. Monitoring procedures      5. Corrective actions      6. Record keeping      7. Verification procedures   4. Emerging issues in food safety      1. Food biotechnology      2. Food bioterrorism      3. Sustainable packaging | 30 | * Practical * Portfolio of Evidence * Written assessment * Oral assessment * Third party report |

**Suggested Methods of Delivery**

* Demonstration
* Practical
* Discussions
* Direct instruction
* Roleplay

**Recommended Resources for 25 Trainees**

**Materials**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Type of material** | **Quantity** | **Ratio** |
|  | Flip charts | - | - |
|  | Whiteboard marker | - | - |

**Tools and Equipment**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Item** | **Quantity** | **Ratio** |
| **1.** | White board | 1 | 1:25 |
| **2.** | Laptop | 1 | 1:25 |
| **3.** | Projector | 1 | 1:25 |
| **4** | Freezer | 1 | 1:25 |
| **5** | Refrigerator | 1 | 1:25 |
| **7** | Blender | 5 | 1:5 |
| **8** | Pestle and mortar | 5 | 1:5 |
| **9** | Chopping boards | 5 | 1:5 |
| **10** | Food items | - | - |
| **11** | Dough mixer | 5 | 1:5 |
| **12** | Kitchen weighing scale | 5 | 1:5 |
| **13** | Waste disposal containers | 5 | 1:5 |
| **14** | Stopwatch | 5 | 1:5 |
| **15** | First aid kit | 1 | 1:5 |
| **16** | Air oven | 5 | 1:5 |

**PPEs**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Item** | **Quantity** | **Ratio** |
|  | Dust coat | 25 | 1:1 |
|  | Closed shoes | 25 | 1:1 |
|  | Gloves | 25 | 1:1 |

**MANAGEMENT OF MALNUTRITION CASES**

**UNIT CODE: 0915 454 15A**

**UNIT DURATION: 100 Hours**

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Manage Malnutrition Cases

**Unit Description**

This unit describes competencies required to manage malnutrition cases. It involves conducting nutrition assessment, enrolling malnourished client, performing nutrition intervention and evaluating nutrition intervention.

**Summary of Learning Outcomes**

1. Conduct nutrition assessment
2. Enroll malnourished client
3. Perform nutrition intervention
4. Evaluate nutrition intervention

**Learning Outcomes, Content, and Suggested Assessment Methods**

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| 1. Conduct nutrition assessment | * 1. Overview of malnutrition      1. Definition of terms         1. Malnutrition         2. Malnutrition management         3. Nutrition         4. Nutrition Status         5. Therapeutic feeds         6. Supplementary feeds      2. Types of malnutrition         1. Acute         2. Chronic         3. Under nutrition         4. Over nutrition      3. Causes of Malnutrition         1. Basic         2. Underlying         3. Immediate      4. PPEs         1. Mask         2. Dust coat or gown         3. Closed shoes         4. Gloves   2. Anthropometric data      1. Weight      2. Height/length      3. MUAC      4. Head circumference      5. Hip circumference      6. Waist circumference      7. Skinfold thickness   3. Biochemical markers      1. Mean cell volume (MCV)      2. Hemoglobin (HB)      3. Random blood sugar (RBS)/Fasting blood sugar (FBS)      4. UREA      5. Na+      6. K+      7. Ca2+   4. Clinical signs and symptoms      1. Palour      2. Hair colour/texture      3. Sunken Eyes      4. Edema      5. Ambulation      6. Bleeding gums   5. Dietary assessment      1. 24hr Recall      2. Food Frequency Questionnaire      3. Food Records/history      4. Dietary diversity score   1.6 Socioeconomic and environmental factors | 32 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Enroll malnourished client | 1. Admission criteria    * 1. Inpatient admission criteria      2. Outpatient admission criteria    1. Treatment protocol       1. Inpatient Treatment protocol       2. Inpatient Treatment protocol    2. Documentation of enrolment | 12 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Perform nutrition intervention | 1. Nutrition interventions    * 1. Deworming      2. Supplementation      3. Nutrition education and counselling      4. Food fortification      5. Diet planning      6. Feeding programs    1. Nutrition intervention plan development    2. Carrying out of Nutrition intervention    3. Nutrition intervention documentation       1. Outpatient registers       2. Inpatient registers | 28 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Evaluate nutrition intervention | * 1. Nutrition intervention outcome monitoring   2. Nutrition outcome measurement   3. Specific nutrition intervention outcomes evaluation   4. Nutrition intervention evaluation report preparation   5. Discharge criteria | 28 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |

**Suggested Methods of Instruction**

* Projects
* Demonstration
* Practical
* Discussions
* Direct instruction
* Role play

**RECOMMENDED RESOURCES**

|  |  |  |  |
| --- | --- | --- | --- |
| **Materials** | | | |
| **No** | **Type of material** | **Quantity** | **Ratio** |
| 1 | Internet connection | - | - |
| 2 | Assorted flash cards | - | - |
| 3 | Flip charts | - | - |
| 4 | Whiteboard markers | - | - |
| **Tools and Equipment** | | | |
| 1 | Laptops | 1 | 1:25 |
| 2 | Whiteboards | 1 | 1:25 |
| 3 | Projectors | 1 | 1:25 |
| 4 | Weighing Scale | 13 | 1:2 |
| 5 | Height/Stadiometers | 13 | 1:2 |
| 6 | Measuring Tape | 13 | 1:2 |
| 7 | Calipers | 13 | 1:2 |
| 8 | Body Mass Index (BMI) wheel | 13 | 1:2 |
| 9 | Glucometer | 5 | 1:5 |
| 10 | Blood Pressure Machine | 5 | 1:5 |
| 11 | Food Frequency Questionnaires (FFQs) | 25 | 1:1 |
| 12 | 24-Hour Dietary Recall | 25 | 1:1 |
| 13 | Food Diaries | 25 | 1:1 |
| 14 | Electronic Health Records (EHRs) | 5 | 1:5 |
| 15 | Food Models and Visual Aids | 5 sets | 1:5 |
| **Personal Protective Equipment** | | | |
| 1 | Dust coat or gown | 25 | 1:1 |
| 2 | Closed shoes | 25 | 1:1 |
| 3 | Gloves | 25 | 1:1 |
| 4 | Face masks | 25 | 1:1 |

**NUTRITION EDUCATION AND COUNSELLING**

**UNIT CODE: 0915 454 16A**

**UNIT DURATION: 100 Hours**

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Conduct Nutrition Education and Counselling

**Unit Description**

This unit standard specifies the competencies required to conduct nutrition education and counselling. It involves carrying out nutrition need assessment, preparing nutrition education and counselling plan, conducting nutrition education and counselling session and evaluating nutrition education and counselling session.

**Summary of Learning Outcomes**

1. Carry Out Nutrition Need Assessment
2. Prepare nutrition education and counselling plan
3. Conduct nutrition education and counseling session
4. Evaluate nutrition education and counselling session

|  |  |  |  |
| --- | --- | --- | --- |
| **Learning Outcome** | **Content** | **Duration**  **(Hours)** | **Suggested Assessment Methods** |
| 1. Carry Out Nutrition Need Assessment | * 1. Definition of terms      1. Nutrition education      2. Nutrition counselling   2. Nutrition needs assessment tools      1. Checklists      2. Questionnaires      3. Interview guides/forms      4. Nutrition assessment tools   3. Create Rapport   4. Gather relevant information   5. Nutritional diagnosis      1. Problem      2. Etiology      3. Signs and symptoms   6. Documentation and dissemination of need assessment report | 28 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Prepare nutrition education and counselling plan | * 1. Nutrition education and counselling objectives   2. Teaching methodologies/Counselling techniques      1. Clarification      2. Encouraging      3. Listening skills      4. Self-disclosure      5. Paraphrasing   3. Resource allocation   4. Preparation of action plan | 26 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Conduct nutrition education and counselling session | 1. Nutrition education and counselling environment 2. Create rapport 3. Nutrition education and counselling session 4. Documentation and dissemination of nutrition education and counselling session | 26 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |
| 1. Evaluate nutrition education and counselling session | 1. Developing evaluation tools    * 1. Performance indicators      2. Formal surveys      3. Participatory methods      4. Public expenditure tracking surveys    1. Identifying performance indicators       1. Nutrition status       2. Dietary assessments       3. Routine visits to clients       4. Anthropometric indicators    2. Nutrition education and counselling outcome    3. Nutrition education and counselling session evaluation | 20 | * Practical * Project * Portfolio of Evidence * Written assessment * Oral assessments * Third party report |

**Suggested Methods of Instruction**

* Practical
* Discussions
* Direct instruction
* Role play

**Recommended Resources for 25 Trainees**

|  |  |  |  |
| --- | --- | --- | --- |
| **S No.** | **Item** | **Quantity** | **Ratio** |
|  | Laptops | 1 | 1:25 |
|  | Projector | 1 | 1:25 |
|  | Whiteboard | 1 | 1:25 |
|  | Flip Charts | - | - |
|  | Assorted whiteboard markers | - | - |

**Tools and equipment**

|  |  |  |  |
| --- | --- | --- | --- |
| **S No.** | **Tools** | **Quantity** | **Ratio** |
|  | Blood Glucose Meters | 5 | 1:5 |
|  | Blood Pressure Monitors | 5 | 1:5 |
|  | Body Mass Index (BMI) Calculator | 5 | 1:5 |
|  | Food Frequency Questionnaires (FFQs) | 25 | 1:1 |
|  | 24-Hour Dietary Recall | 25 | 1:1 |
|  | Food Diaries | 25 | 1:1 |
|  | Assorted Food Models and Visual Aids | 5 | 1:5 |
| **Equipment** | | | |
|  | First aid kits/box | 1 | 1:25 |
|  | Weighing Scale | 5 | 1:5 |
|  | Height/Stadiometers | 5 | 1:5 |
|  | Measuring Tape | 5 | 1:5 |
|  | Calipers | 5 | 1:5 |

**PPEs**

|  |  |  |  |
| --- | --- | --- | --- |
| **S No.** | **Item** | **Quantity (per trainee)** |  |
|  | Dust coat | 25 | 1:1 |
|  | Closed shoes | 25 pairs | 1:1 |