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**THE REPUBLIC OF KENYA**

**NATIONAL OCCUPATIONAL STANDARDS**

**FOR**

**POULTRY PROCESSING OPERATOR**

**LEVEL 5**



TVET CDACC

P.O. BOX 15745-00100

NAIROBI

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# FOREWORD

Agriculture plays an important role in Kenya’s economy. This importance is reflected in the positive correlation between growth in the agricultural sector and that of the national economy. Kenya’s economy registered a growth of 3.3% between 2013 and 2014, agriculture was the leading sector which contributed 27.3% to the Gross Domestic Product (GDP) in 2014.In this regard, crops, animal production, and fishing and aquaculture contributed 19.7%, 4.9% and 0.8% respectively (25.4%), while the balance of 1.9% came from forestry and other support activities. Like most countries in Africa, majority (61%) of Kenya’s population rely on agriculture for employment despite the challenges of climate change, soil degradation and increasing population pressure. In order to enhance the productivity of the work force and ensure a productive and innovative agricultural sector, as well as food security, meaningful education and training of all people involved is of utmost importance.

In the past Agricultural Technical and Vocational Education and Training (ATVET) did not always receive adequate attention from policy-makers. The education system emphasized on acquiring knowledge rather than skills development. This resulted to most farmers and the stakeholders in agriculture lacking the requisite skills. Current reforms in the education system aim at addressing this challenge by reforming the curriculum, its delivery and its assessment. These reforms can only be achieved through Competency Based Education and Training (CBET) approach. The reforms demand for a competency-based curriculum which is a tool that will aid in the development of skills, knowledge and attitudes of the farmers. Such training will improve crop and animal husbandry skills which will in turn contribute to increased productivity and improvement of agriculture in the country. Ideally, this education and training will not only include farmers, but all professions involved in agriculture

These Occupational Standards as such presents us with a base for developing curricula for training in the poultry subsector and presents the basis for content development for the curricula. It will lead to a situation where the trainees will gain skills required in their occupation/jobs. The curriculum to be developed based on these OS will revolutionize the agriculture sector in Kenya.

**Principal Secretary,   
State Department of Livestock,**

**Ministry of Agriculture, Livestock, Fisheries and Irrigation.**

# PREFACE

Poultry farming has been on the increase in the last ten years due to diminishing land size, high population density and the escalating un-employment levels in formal sector. It contributes to the lives of 21 million Kenyans and 6.1% of the agricultural GDP. There are approximately 32 million birds in Kenya out of which 76% are free ranging indigenous chicken, 8% are broilers and 14% commercial layers. The indigenous poultry production involves 75% of rural households. As of 2011, it was reported that approximately 71% of eggs and poultry meat in Kenya are derived from indigenous poultry. In 2006, it was reported that commercial poultry production constitutes 23.8% of the total poultry population, with broilers representing 16.2% and layers another 7.8%. Other poultry species such as ducks, guinea fowl, Quails and turkeys comprise about 2.2% of the total poultry population. The industry is therefore is supposed to play a strategic role in the ongoing socio-economic pillar under the vision 2030. However, the industry has seen slow growth over the past years due to lack of skills and increasing costs of production. This is despite the fact that the sub-sector contributes positively to wealth creation, poverty alleviation, and gender equity especially in the rural areas. The industry contributes to the macro economy by generating incomes for the value chain actors, creation of employment opportunities for rural people and provision of source of protein for poor families and manure for their gardens.

To address the challenge of lack of skilled labour, a Competency Based curriculum development process was initiated. Using the DACUM methodology Job or Occupational Analysis Chart and later these Occupation standards were developed in collaboration with the industry players and guided by TVET Curriculum Development Assessment and Certification Council (CDACC). 11 Jobs/Occupations were identified. The information generated from the task analysis was also used to develop the Units of competences for each job. This was done by experts drawn from technical training institutions, Universities and industry representatives. The result of the analysis was to the realization of Occupational standards for the 11 jobs along the poultry value chain.

The OS were presented to the Poultry Sector Skills Advisory Committee (PSSAC) who made recommendations for improvement and later submitted to the next stages of approval by TVET CDACC. The OS development process was a rigorous exercise that involved wide consultations with various stakeholders like expert workers with the aim of enriching it and promoting its acceptance. The end product is a rich and well thought tool that will be used to develop a curriculum that shall deliver Competence Based Training and produce competent graduates that can employed, entrepreneurs or self-employed in the agriculture industry.

**CHAIRPERSON, TVET CDACC.**

# ACKNOWLEDGEMENTS

These occupational standards were developed through the combined efforts of different stakeholders in the poultry subsector namely private practitioners, Dairy Training Institute (DTI), Animal Health Training institutes (AHITI), regulators and key state departments. We wish to acknowledge the invaluable contribution received from the private sector industry players who provided inputs towards the development of these occupational standards against which this curriculum will be developed.

With the Occupational /Job Analysis charts in hand, the stakeholders provided technical inputs towards the development and completion of this OS. They sat through many hours putting together all the knowledge, skills and attitudes that a Poultry industry worker would require in effectively performing his/ her duties and tasks as per the occupational standards developed.

We are most sincerely thankful to the heads of these institutions who released their staff to join in this important course. Our gratitude goes to the various facilitators that moderated several workshops and ensured that all deliberations and outputs were captured and compiled. These persons did not only demonstrate patience, but also provided leadership by motivating and guiding the groups towards the finalization of this curriculum. We cannot forget to thank the government agencies that regulate the Technical and Vocational Education and Training (TVET) system namely TVET Authority and CDACC through whom guidance and support was provided on this curriculum development.

We are greatly indebted to the Food Security and Drought Resilience Programme (FSDRP) with support of the German Development Cooperation (GIZ), which enabled the implementation of this curriculum development process through the Food Security Project (FSP). In the same breath, we are indebted to the National Coordinator of the GIZ Comprehensive Africa Agricultural Development Programme (CAADP) ATVET project who was instrumental in enabling the smooth and close cooperation between the project and the key government ministries namely Ministry of Agriculture, Livestock, Fisheries and Irrigation (MoALF&I) and Ministry of Education (MoE).

Last but not least, we are grateful to any other person, institution, organization or company who played any role in making this process successful but has not been mentioned. We dearly acknowledge your contribution and support.

**CHAIRPERSON**

**POULTRY SECTOR SKILLS ADVISORY COMMITTEE**

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# KEY TO UNIT CODE

**AGR /OS/ PR /BC /01/5/ A**

Industry or sector

Occupational Standards

Occupational area

Type of competency

Competency number

Competency level

Version control

# ABBREIATIONS AND ACRONYMS

|  |  |
| --- | --- |
| 2D | 2 Dimensional |
| 3D | 3 Dimensional |
| AHITI | Animal Health and Industry Training Institute |
| ATVET | Agricultural Technical and Vocational Education and Training |
| CAADP | Comprehensive Africa Agricultural Development Programme |
| CAD | Computer Assisted Drawing |
| CBET | Competency Based Education and Training |
| CDACC | Curriculum Development Assessment and Certification Council |
| CEO | Chief Executive Officer |
| DACUM | Develop a Curriculum |
| DTI | Dairy Training Institute |
| DVS | Director of Veterinary Services |
| EMCA | Environmental Management and Conservation Act |
| EMS | Environmental Management Systems |
| FSDRP | Food Security and Drought Resilience Programme |
| FSP | Food Security Project |
| GDP | Gross Domestic Product |
| GMP | Good Manufacturing Practices |
| HACCP | Hazard Analysis Critical Control Point |
| ICT | Information Communication Technology |
| KCSE | Kenya Certificate of Secondary Education |
| KNQA | Kenya National Qualifications Authority |
| KNQF | Kenya National Qualifications Framework |
| LCD | Liquid Crystal Display |
| MAP | Modified Atmosphere Packaging |
| MoALF&I | Ministry of Agriculture, Livestock, Fisheries and Irrigation |
| MoE | Ministry of Education |
| NCA | National Construction Authority |
| NEMA | National Environmental Management Authority |
| NEPAD | New Partnerships for African Development |
| NGO | Non-Governmental Organization |
| NPCA | NEPAD Planning and Coordinating Agency |
| OS | Occupational Standard |
| OSH | Occupational Safety and Health |
| PPE | Personal Protective Equipment |
| PSSAC | Poultry Sector Skills Advisory Committee |
| TVET | Technical and Vocational Education and Training |
| TVETA | Technical and Vocational Education and Training Authority |

# OVERVIEW

Poultry processing level 5 qualification consists of competencies that a person must achieve to enable him/her to construct poultry processing plant, perform pre-slaughter handling, perform poultry slaughter, grade poultry meat, produce poultry-based products, manage poultry meat safety, manage poultry by products and perform administrative duties

This course consists of basic, common and core units of competency as indicated below:

**Basic Units of Competency**

|  |  |
| --- | --- |
| **Unit Code** | **Unit Title** |
| AGR/OS/PR/BC/01/5/A | Demonstrate Communication Skills |
| AGR/OS/PR/BC/02/5/A | Demonstrate Numeracy Skills |
| AGR/OS/PR/BC/03/5/A | Demonstrate Digital Literacy |
| AGR/OS/PR/BC/04/5/A | Demonstrate Entrepreneurial Skills |
| AGR/OS/PR/BC/05/5/A | Demonstrate Employability Skills |
| AGR/OS/PR/BC/06/5/A | Demonstrate Environmental Literacy |
| AGR/OS/PR/BC/07/5/A | Demonstrate Occupational Safety and Health Practices |

**Common** **Unit of Learning**

|  |  |
| --- | --- |
| **Unit Code** | **Unit Title** |
| AGR/OS/PR/BC/08/5/A | Prepare and Interpret Technical Drawing |

**Core** **Units of Learning**

|  |  |
| --- | --- |
| **Unit Code** | **Unit Title** |
| AGR/OS/PR/CR/01/5/A | Construct Poultry Processing Plant |
| AGR/OS/PR/CR/02/5/A | Perform Pre-Slaughter Handling |
| AGR/OS/PR/CR/03/5/A | Perform Poultry Slaughter |
| AGR/OS/PR/CR/04/5/A | Grade Poultry Meat |
| AGR/OS/PR/CR/05/5/A | Produce Poultry-Based Products |
| AGR/OS/PR/CR/06/5/A | Manage Poultry Meat Safety |
| AGR/OS/PR/CR/07/5/A | Manage Poultry By Products |
| AGR/OS/PR/CR/08/5/A | Perform Administrative Duties |

**BASIC UNITS OF COMPETENCY**

# DEMONSTRATE COMMUNICATION SKILLS

**UNIT CODE:** AGR/OS/PR/BC/01/5/A

**UNIT DESCRIPTION**

This unit covers the competencies required to demonstrate communication skills. It involves meeting communication needs of clients and colleagues, contributing to the development of communication strategies, conducting workplace interviews, facilitating group discussions and representing the organisation

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms*** ***are elaborated in the Range*** |
| 1. Meet communication needs of clients and colleagues | 1. Specific communication needs of clients and colleagues are identified and met based on workplace requirements 2. Different communication approaches are identified and applied according to clients’ needs 3. Conflict is identified and addressed as per the standards of the organization |
| 1. Contribute to the development of communication strategies | 1. Strategies for internal and external dissemination of information are developed, promoted, implemented and reviewed as per organizations’ strategic plan 2. Channels of communication are established and reviewed based on the workplace needs 3. Communication training needs are identified and provided according to SOPs 4. Work related network and relationship are maintained based on workplace requirements 5. Negotiation and conflict resolution strategies are maintained as per the workplace procedures |
| 1. Conduct workplace interviews | 1. ***Communication strategies*** are identified and employed in ***interview situations*** based on workplace requirements 2. Records of interviews are made and maintained in accordance with organizational procedures 3. Effective questioning, listening and nonverbal communication techniques are used based on needs |
| 1. Facilitate group discussions | 1. Mechanisms to enhance ***effective group interaction*** are identified and implemented according to workplace requirements 2. Strategies to encourage group participation are identified and used as per organizations’ procedures 3. Meetings objectives and agenda are set and followed based on workplace requirements 4. Relevant information is provided and feedback obtained according to set protocols 5. Evaluation of group communication strategies is undertaken in accordance with workplace guidelines 6. Specific communication needs of individuals are identified and addressed as per individual needs |
| 1. Represent the organization | 1. Relevant presentation are researched and presented based on internal or external communication forums requirements Presentation is delivered in a clear and sequential manner as per the predetermined time 2. Presentation is made as per appropriate media 3. Difference views are respected based on workplace procedures 4. Written communication is done as per organizational standards 5. Inquiries are responded according to organizational standard |

**RANGE**

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

|  |  |
| --- | --- |
| **Variable** | **Range** |
| 1. Communication strategies may include but not limited to: | * Language switch * Comprehension check * Repetition * Asking confirmation * Paraphrase * Clarification request * Translation * Restructuring * Approximation * Generalization |
| 1. Effective group interaction may include but not limited to: | * Identifying and evaluating what is occurring within an interaction in a non-judgmental way * Using active listening * Making decision about appropriate words, behavior * Putting together response which is culturally appropriate * Expressing an individual perspective * Expressing own philosophy, ideology and background and exploring impact with relevance to communication * Openness and flexibility in communication |
| 1. Interview situations may include but not limited to: | * Establishing rapport * Eliciting facts and information * Facilitating resolution of issues * Developing action plans * Diffusing potentially difficult situations |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required Skills**

The individual needs to demonstrate the following skills:

* Active listening
* Giving/receiving feedback
* Interpretation of information
* Role boundaries setting
* Negotiation
* Communication

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Communication process
* Dynamics of groups and different styles of group leadership
* Communication skills relevant to client groups
* Flexibility in communication

**EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical aspects of Competency | Assessment requires evidence that the candidate:   1. Met communication needs of clients and colleagues 2. Contributed to the development of communication strategies 3. Conducted interviews 4. Facilitated group discussions 5. Represented the organization |
| 1. Resource Implications | The following resources should be provided:   1. Access to relevant workplace or appropriately simulated environment where assessment can take place 2. Materials relevant to the proposed activity or tasks |
| 1. Methods of Assessment | Competency in this unit may be assessed through:   1. Observation 2. Oral questioning 3. Written test 4. Portfolio of Evidence 5. Interview 6. Third party report |
| 1. Context of Assessment | Competency may be assessed:   1. On the job 2. Off the job 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

# DEMONSTRATE NUMERACY SKILLS

**UNIT CODE:** AGR/OS/PR/BC/02/5/A

**UNIT DESCRIPTION**

This unit covers the competencies required to demonstrate numeracy skills. it involves calculating with whole numbers and familiar fractions, decimals, and percentages for work estimating, measuring, and calculating with routine metric measurements for work, using routine maps and plans for work, interpreting, drawing and constructing 2D and 3D shapes for work, interpreting routine tables, graphs and charts for work, collecting data and constructing routine tables and graphs for work and using basic functions of calculator.

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms*** ***are elaborated in the Range.*** |
| 1. Calculate with whole numbers and familiar fractions, decimals and percentages for work | 1. Mathematical information that may be partly embedded in routine workplace tasks and texts is selected and interpreted as per SOPs 2. Whole numbers and routine or familiar fractions, decimals and percentages including familiar rates are interpreted and comprehended as per SOPs 3. Calculations which may involve a number of steps are performed as per SOPs 4. Calculations done with whole numbers and routine or familiar fractions, decimals and percentages as per SOPs 5. Conversion between equivalent forms of fractions, decimals and percentages is done as per SOPs 6. Order of operations is applied to solve multi-step calculations as per SOPs 7. Problem solving strategies are appropriately applied as per SOPs 8. Estimations are made to check reasonableness of problem solving process, outcome and its appropriateness to the context and task as per SOPs 9. Formal and informal mathematical language and symbolism are used to communicate the result of the task as per SOPs. |
| 2. Estimate, measure, and calculate with routine metric measurements for work | 1. Measurement information in workplace tasks and texts are selected and interpreted in accordance with workplace requirements 2. Appropriate routine measuring equipment are identified and selected in accordance with workplace requirements 3. Measurements are estimated and made using correct units as per measurement manuals. 4. Estimations and calculations done as per routine measurements 5. Conversions performed routinely as per metric units 6. Problem solving processes are used to undertake the tasks as per workplace procedures. 7. Estimations are made to check reasonableness of problem solving process, outcome and its appropriateness to the context and task as per workplace procedures 8. Information is recorded using mathematical language and symbols appropriate to discuss the task as per workplace procedures. |
| 3. Use routine maps and plans for work | 1. Features are identified in routine maps and plans as per SOPs 2. Symbols and keys in routine maps and plans are clearly explained as per SOPs 3. Orientation of map to North is identified and interpreted as per SOPs 4. Understanding of direction and location is clearly demonstrated as per SOPs 5. Simple scale is applied to estimate length of objects, or distance to location or object as per SOPs 6. Directions are given and received using both formal and informal language as per SOPs |
| 4. Interpret, draw and construct 2D and 3D shapes for work | 1. Two dimensional shapes and routine three dimensional shapes identified in everyday objects and in different orientations in accordance with job specifications 2. The use and application of shapes elaborately explained as per SOPs 3. Formal and informal mathematical language and symbols used to describe and compare the features of two dimensional shapes and routine three dimensional shapes as per workplace procedures. 4. Common angles identified in accordance with SOPs 5. Common angles in everyday objects are appropriately estimated as per SOPs 6. Formal and informal mathematical language are used to describe and compare common angles as per workplace procedures. 7. Common geometric instruments used to draw two dimensional shapes as per SOPs 8. Routine three dimensional objects constructed from given nets as per SOPs. |
| 5. Interpret routine tables, graphs and charts for work | 1. Routine tables, graphs and charts identified in predominately familiar texts and contexts as per tables and graph manuals 2. Common types of graphs and their different uses identified as per SOPs 3. Features of tables, graphs and charts identified as per workplace procedures 4. Information in routine tables, graphs and charts located and interpreted as per workplace procedures 5. Calculations are perform to interpret information as per SOPs 6. How statistics can inform and persuade interpretations is explained as per SOPs 7. Misleading statistical information is identified as per workplace procedures. 8. Information relevant to the workplace is discussed as per workplace procedures. |
| 6. Collect data and construct routine tables and graphs for work | 1. Features of common tables and graphs identified as per SOPs 2. Uses of ***different tables and graphs*** identified as per job specifications 3. Data and variables to be collected are determined as per workplace procedures. 4. The audience is determined as per the workplace procedures 5. Method of data collection is select as per job requirement 6. Data is collected as per SOPs 7. Information is collated in a table as per SOPs 8. Suitable scale and axes determined as per job specifications 9. Graph to present information is drafted and drawn as per SOPs 10. Data checked to ensure that it meets the expected results and context as per workplace procedures 11. Information is reported or discussed using formal and informal mathematical language as per workplace procedures |
| 7. Use basic functions of calculator | * 1. Keys are identified and used for ***basic functions on a calculator*** as per SOPs   2. Calculation is done using whole numbers, money and routine decimals and percentages as per SOPs   3. Calculation done with routine fractions and percentages as per SOPs   4. Order of operations is applied to solve multi-step calculations as per SOPs   5. Results are interpreted, displayed and recorded as per workplace procedures   6. Estimations are made to check reasonableness of problem solving process, outcome and its appropriateness to the context and task as per workplace procedures   7. Formal and informal mathematical language and appropriate symbolism and conventions used to communicate the result of the task as per workplace procedures. |

**RANGE**

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

|  |  |
| --- | --- |
| **Variable** | **Range** |
| 1. Use basic functions of calculator may include but not limited to: | * Addition * Multiplication * Calculate ratios * Conversion of ratios into percentages |
| 1. Different tables and graphs may include but not limited to: | * Bar Graphs * Flow Charts * Pie Charts * Pictograph * Line Graphs * Time Series Graphs * Stem and Leaf Plot * Histogram * Dot Plot * Scatter plot |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required Skills**

The individual needs to demonstrate the following skills:

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

**Required knowledge**

The individual needs to demonstrate knowledge of:

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

**EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical aspects of Competency | Assessment requires evidence that the candidate:   1. Calculated correctly with whole numbers and routine or familiar fractions, decimals and percentages 2. Estimated, measured and calculated with routine metric measurements 3. Applied simple scale to estimate length of objects or distance to location or object 4. Used formal and informal mathematical language to describe and compare common angles 5. Used common geometric instruments to draw two dimensional shapes 6. Collected data and constructed routine tables and graphs 7. Used basic functions of calculator correctly |
| 1. Resource Implications | The following resources should be provided:   1. Access to relevant workplace or appropriately simulated environment where assessment can take place 2. Materials relevant to the proposed activity or tasks |
| 1. Methods of Assessment | Competency may be assessed through:   1. Observation 2. Oral questioning 3. Written test 4. Portfolio of Evidence 5. Interview 6. Third party report |
| 1. Context of Assessment | Competency may be assessed in:   1. On the job 2. Off the job 3. Industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

**DEMONSTRATE DIGITAL LITERACY**

**UNIT CODE:** AGR/OS/PR/BC/03/5/A

**UNIT DESCRIPTION**

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

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms*** ***are elaborated in the Range*** |
| 1. Identify appropriate computer software and hardware | 1. Concepts of ICT are determined in accordance with computer equipment 2. Classifications of computers are determined in accordance with manufacturers specification 3. ***Appropriate computer software*** is identified according to manufacturer’s specification 4. ***Appropriate computer hardware*** is identified according to manufacturer’s specification 5. Functions and commands ofoperating system are determined in accordance withmanufacturer’s specification |
| 1. Apply security measures to data, hardware, software in automated environment | 1. ***Data security and privacy are classified*** in accordance with the prevailing technology 2. ***Security threats*** areidentified, **and *control measures*** are applied in accordance with laws governing protection of ICT 3. Computer threats and crimes are detected in accordance with Information security management guidelines 4. Protection against computer crimes is undertaken in accordance with laws governing protection of ICT |
| 1. Apply computer software in solving tasks | 1. ***Word processing concepts***are applied in resolving workplace tasks, report writing and documentation as per job requirements 2. ***Word processing utilities*** are applied in accordance with workplace procedures 3. Worksheet layout is prepared in accordance with work procedures 4. Worksheet is build and data manipulated in the worksheet in accordance with workplace procedures 5. Continuous data manipulated on worksheet is undertaken in accordance with work requirements 6. Database design and manipulation is undertaken in accordance with office procedures 7. Data sorting, indexing, storage, retrieval and security is provided in accordance with workplace procedures |
| 1. Apply internet and email in communication at workplace | 1. Electronic mail addresses are opened and applied in workplace communication in accordance with office policy 2. Office internet functions are defined and executed in accordance with office procedures 3. ***Network configuration*** is determined in accordance with office operations procedures 4. Official World Wide Web is installed and managed according to workplace procedures |
| 1. Apply desktop publishing in official assignments | 1. Desktop publishing functions and tools are identified in accordance with manufactures specifications 2. Desktop publishing tools are developed in accordance with work requirements 3. Desktop publishing tools are applied in accordance with workplace requirements 4. Typeset work is enhanced in accordance with workplace standards |
| 1. Prepare presentation packages | 1. Types of presentation packages are identified in accordance with office requirements 2. Slides are created and formulated in accordance with workplace procedures 3. Slides are edited and run in accordance with work procedures 4. Slides and handouts are printed according to work requirements |

**RANGE**

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

|  |  |
| --- | --- |
| **Variable** | **Range** |
| 1. Appropriate computer hardware may include but not limited to: | * Computer case * Monitor * keyboard * mouse |
| 1. Data security and privacy may include but not limited to: | * Confidentiality of data * Cloud computing * Integrity -but-curious data surfing |
| 1. Security and control measures may include but not limited to: | * Counter measures against cyber terrorism * Risk reduction * Cyber threat issues * Risk management * Pass wording |
| 1. Security threats may include but not limited to: | * Cyber terrorism * Hacking |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required Skills**

The individual needs to demonstrate the following skills:

* Analytical skills
* Interpretation
* Typing
* Communication
* Basic ICT skills

**Required Knowledge**

The individual needs to demonstrate knowledge of:

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

**EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   1. Identified and controlled security threats 2. Detected and protected computer crimes 3. Applied word processing in office tasks 4. Designed, prepared work sheet and applied data to the cells in accordance to workplace procedures 5. Opened electronic mail for office communication as per workplace procedure 6. Installed internet and World Wide Web for office tasks in accordance with office procedures 7. Integrated emerging issues in computer ICT applications 8. Applied laws governing protection of ICT |
| 1. Resource Implications | The following resources should be provided:   1. Tablets 2. Laptops 3. Desktop computers 4. Calculators 5. Internet 6. Smart phones 7. Operation Manuals |
| 1. Methods of Assessment | Competency may be assessed through:   1. Written Test 2. Observation 3. Practical assignment 4. Interview/Oral Questioning |
| 1. Context of Assessment | Competency may be assessed in:   1. Off the job 2. On the job setting 3. Industrial attachment |
| 5. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

**DEMONSTRATE ENTREPRENEURIAL SKILLS**

**UNIT CODE :** AGR/OS/PR/BC/04/5/A

**UNIT DESCRIPTION**

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

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT** | **PERFORMANCE CRITERIA** |
| 1. Demonstrate understanding of an Entrepreneur | 1. Entrepreneurs and Businesspersons are distinguished as per principles of entrepreneurship 2. ***Types of entrepreneurs*** are identified as per principles of entrepreneurship 3. Ways of becoming an Entrepreneur are identified as per principles of Entrepreneurship 4. ***Characteristics of Entrepreneurs*** are identified as per principles of Entrepreneurship 5. Factors affecting Entrepreneurship development are explored as per principles of Entrepreneurship |
| 1. Demonstrate understanding of Entrepreneurship and self-employment | 1. Entrepreneurship and self-employment are distinguished as per principles of entrepreneurship 2. Importance of self-employment is analysed based on business procedures and strategies 3. ***Requirements for entry into self-employment*** are identified according to business procedures and strategies 4. Role of an Entrepreneur in business is determined according to business procedures and strategies 5. Contributions of Entrepreneurs to National development are identified as per business procedures and strategies 6. Entrepreneurship culture in Kenya is explored as per business procedures and strategies 7. Born or made Entrepreneurs are distinguished as per entrepreneurial traits |
| 1. Identify Entrepreneurship opportunities | 1. Sources of business ideas are identified as per business procedures and strategies 2. Business ideas and opportunities are generated as per business procedures and strategies 3. Business life cycle is analysed as per business procedures and strategies 4. Legal aspects of business are identified as per procedures and strategies 5. Product demand is assessed as per market strategies 6. Types of ***business environment*** are identified and evaluated as per business procedures 7. Factors to consider when evaluating business environment are explored based on business procedure and strategies 8. Technology in business is incorporated as per best practice |
| 1. Create entrepreneurial awareness | 1. ***Forms of businesses*** are explored as per business procedures and strategies 2. Sources of business finance are identified as per business procedures and strategies 3. Factors in selecting source of business finance are identified as per business procedures and strategies 4. ***Governing policies*** on Small Scale Enterprises (SSEs) are determined as per business procedures and strategies 5. Problems of starting and operating SSEs are explored as per business procedures and strategies |
| 1. Apply entrepreneurial motivation | 1. ***Internal and external motivation*** factors are determined in accordance with motivational theories 2. Self-assessment is carried out as per entrepreneurial orientation 3. Effective communications are carried out in accordance with communication principles 4. Entrepreneurial motivation is applied as per motivational theories |
| 1. Develop innovative business strategies | 1. Business innovation strategies are determined in accordance with the organization strategies 2. Creativity in business development is demonstrated in accordance with business strategies 3. ***Innovative business strategies*** are developed as per business principles 4. Linkages with other entrepreneurs are created as per best practice 5. ICT is incorporated in business growth and development as per best practice |
| 1. Develop Business Plan | 1. Identified Business is described as per business procedures and strategies 2. Marketing plan is developed as per business plan format 3. Organizational/Management plan is prepared in accordance with business plan format 4. Production/operation plan in accordance with business plan format 5. Financial plan is prepared in accordance with the business plan format 6. Executive summary is prepared in accordance with business plan format 7. Business plan is presented as per best practice |

**RANGE**

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

|  |  |
| --- | --- |
| 1. **Variable** | **Range** |
| 1. Types of entrepreneurs may include but not limited to: | * Innovators * Imitators * Craft * Opportunistic * Speculators |
| 1. Characteristics of Entrepreneurs may include but not limited to: | * Creative * Innovative * Planner * Risk taker * Networker * Confident * Flexible * Persistent * Patient * Independent * Future oriented * Goal oriented |
| 1. Requirements for entry into self-employment may include but not limited to | * Technical skills * Management skills * Entrepreneurial skills * Resources * Infrastructure |
| 1. Internal and external motivation may include but not limited to: | * Interest * Passion * Freedom * Prestige * Rewards * Punishment * Enabling environment * Government policies |
| 1. Business environment may include but not limited to: | * External * Internal * Intermediate |
| 1. Forms of businesses may include but not limited to: | * Sole proprietorship * Partnership * Limited companies * Cooperatives |
| 1. Governing policies may include but not limited to: | * Increasing scope for finance * Promoting cooperation between entrepreneurs and private sector * Reducing regulatory burden on entrepreneurs * Developing IT tools for entrepreneurs |
| 1. Innovative business strategies may include but not limited to: | * New products * New methods of production * New markets * New sources of supplies * Change in industrialization |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required Skills**

The individual needs to demonstrate the following skills:

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

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Decision making
* Business communication
* Change management
* Competition
* Risk
* Net working
* Time management
* Leadership
* Factors affecting entrepreneurship development
* Principles of Entrepreneurship
* Features and benefits of common operational practices, e. g., continuous improvement (kaizen), waste elimination,
* Conflict resolution
* Health, safety and environment (HSE) principles and requirements
* Customer care strategies
* Basic financial management
* Business strategic planning
* Impact of change on individuals, groups and industries
* Government and regulatory processes
* Local and international market trends
* Product promotion strategies
* Market and feasibility studies
* Government and regulatory processes
* Local and international business environment
* Relevant developments in other industries
* Regional/ County business expansion strategies

**EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   1. Distinguished entrepreneurs and business persons correctly 2. Identified ways of becoming an entrepreneur appropriately 3. Explored factors affecting entrepreneurship development appropriately 4. Analysed importance of self-employment accurately 5. Identified requirements for entry into self-employment correctly 6. Identified sources of business ideas correctly 7. GeneratedBusiness ideas and opportunities correctly 8. Analysed business life cycle accurately 9. Identified legal aspects of business correctly 10. Assessed product demand accurately 11. Determined Internal and external motivation factors appropriately 12. Carried out communications effectively 13. Identified sources of business finance correctly 14. Determined Governing policy on small scale enterprise appropriately 15. Explored problems of starting and operating SSEs effectively 16. Developed Marketing, Organizational/Management, Production/Operation and Financial plans correctly 17. Prepared executive summary correctly 18. Determined business innovative strategies appropriately 19. Presented business plan effectively |
| 1. Resource Implications | The following resources should be provided:   1. Access to relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place |
| 1. Methods of Assessment | Competency may be assessed through:   1. Written tests 2. Oral questions 3. Third party report 4. Interviews 5. Portfolio |
| 1. Context of Assessment | Competency may be assessed:   1. On-the-job 2. Off-the –job 3. During Industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

# DEMONSTRATE EMPLOYABILITY SKILLS

**UNIT CODE:** AGR/OS/PR/BC/05/5/A

**Unit Description**

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

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms are elaborated in the Range*** |
| 1. Conduct self-management | 1. Personal vision, mission and goals are formulated based on potential and in relation to organization objectives 2. Emotional intelligence is demonstrated as per workplace requirements. 3. Individual performance is evaluated and monitored according to the agreed targets. 4. Assertiveness is developed and maintained based on the requirements of the job. 5. Accountability and responsibility for own actions are demonstrated based on workplace instructions. 6. Self-esteem and a positive self-image are developed and maintained based on values. 7. Time management, attendance and punctuality are observed as per the organization policy. 8. Goals are managed as per the organization’s objective 9. Self-strengths and weaknesses are identified based on personal objectives |
| 1. Demonstrate interpersonal communication | 1. Writing skills are demonstrated as per communication policy 2. Negotiation and persuasion skills are demonstrated as per communication policy 3. Internal and external stakeholders’ needs are identified and interpreted as per the communication policy 4. Communication networks are established based on workplace policy 5. Information is shared as per communication policy |
| 1. Demonstrate critical safe work habits | 1. Stress is managed in accordance with workplace policy. 2. Punctuality and time consciousness is demonstrated in line with workplace policy. 3. Personal objectives are integrated with organization goals based on organization’s strategic plan. 4. ***Resources*** are utilized in accordance with workplace policy. 5. Work priorities are set in accordance to workplace goals and objectives. 6. Leisure time is recognized and utilized in line with personal objectives. 7. ***Drugs and substances of abuse*** are identified and avoided based on workplace policy. 8. HIV and AIDS prevention awareness is demonstrated in line with workplace policy. 9. Safety consciousness is demonstrated in the workplace based on organization safety policy. 10. ***Emerging issues*** are identified and dealt with in accordance with organization policy. |
| 1. Lead small teams | 1. Performance targets for the ***team*** are set based on organization’s objectives 2. Duties are assigned in accordance with the organization policy. 3. ***Forms of communication*** in a team are established according to organization’s policy. 4. Team performance is evaluated based on set targets as per workplace policy. 5. Conflicts are resolved between team members in line with organization policy. 6. Gender related issues are identified and mainstreamed in accordance workplace policy. 7. Human rights and fundamental freedoms are identified and respected as Constitution of Kenya 2010. 8. Healthy relationships are developed and maintained in line with workplace. |
| 1. Plan and organize work | 1. Task requirements are identified as per the workplace objectives 2. Task is interpreted in accordance with safety (OHS ), environmental requirements and quality requirements 3. Work activity is organized with other involved personnel as per the SOPs 4. Resources are mobilized, allocated and utilized to meet project goals and deliverables. 5. Work activities are monitored and evaluated in line with organization procedures. 6. Job planning is documented in accordance with workplace requirements. 7. Time is managed achieve workplace set goals and objectives. |
| 1. Maintain professional growth and development | 1. Personal training needs are identified and assessed in line with the requirements of the job. 2. ***Training and career opportunities*** are identified and utilized based on job requirements. 3. Resources for training are mobilized and allocated based organizations and individual skills needs. 4. Licensees and certifications relevant to job and career are obtained and renewed as per policy. 5. Work priorities and personal commitments are balanced and managed based on requirements of the job and personal objectives. 6. Recognitions are sought as proof of career advancement in line with professional requirements. |
| 1. Demonstrate workplace learning | 1. Learning opportunities are sought and managed based on job requirement and organization policy. 2. Improvement in performance is demonstrated based on courses attended. 3. Application of learning is demonstrated in both technical and non-technical aspects based on requirements of the job 4. Time and effort is invested in learning new skills based on job requirements 5. Initiative is taken to create more effective and efficient processes and procedures in line with workplace policy. 6. New systems are developed and maintained in accordance with the requirements of the job. 7. Awareness of personal role in workplace ***innovation*** is demonstrated based on requirements of the job. |
| 1. Demonstrate problem solving skills | 1. Creative, innovative and practical solutions are developed based on the problem 2. Independence and initiative in identifying and solving problems is demonstrated based on requirements of the job. 3. Team problems are solved as per the workplace guidelines 4. Problem solving strategies are applied as per the workplace guidelines 5. Problems are analyzed and assumptions tested as per the context of data and circumstances |
| 1. Demonstrate workplace ethics | 1. Policies and guidelines are observed as per the workplace requirements 2. Self-worth and professionalism is exercised in line with personal goals and organizational policies 3. Code of conduct is observed as per the workplace requirements 4. Integrity is demonstrated as per legal requirement |

**RANGE**

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

|  |  |
| --- | --- |
| **Range** | **Variable** |
| 1. Drug and substance abuse may include but not limited to: | Commonly abused   * Alcohol * Tobacco * Miraa * Over-the-counter drugs * Cocaine * Bhang * Glue |
| 1. Feedback may include but not limited to: | * Verbal * Written * Informal * Formal |
| 1. Relationships may include but not limited to: | * Man/Woman * Trainer/trainee * Employee/employer * Client/service provider * Husband/wife * Boy/girl * Parent/child * Sibling relationships |
| 1. Forms of communication may include but not limited to: | * Written * Visual * Verbal * Non verbal * Formal and informal |
| 1. Team may include but not limited to: | * Small work group * Staff in a section/department * Inter-agency group |
| 1. Personal growth may include but not limited to: | |  | | --- | | * Growth in the job * Career mobility * Gains and exposure the job gives * Net workings * Benefits that accrue to the individual as a result of noteworthy performance | |
| 1. Personal objectives may include but not limited to: | * Long term * Short term * Broad * Specific |
| 1. Trainings and career opportunities may include but not limited to | * Participation in training programs * Technical * Supervisory * Managerial * Continuing Education * Serving as Resource Persons in conferences and workshops |
| 1. Resource may include but not limited to: | * Human * Financial * Hardware * Software |
| 1. Innovation may include but not limited to: | * New ideas * Original ideas * Different ideas * Methods/procedures * Processes * New tools |
| 1. Emerging issues may include but not limited to: | * Terrorism * Social media * National cohesion * Open offices |
| 1. Range of media for learning may include but not limited to: | * Mentoring * peer support and networking * IT and courses |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required Skills**

The individual needs to demonstrate the following skills:

* Communication
* Critical thinking
* Observation
* Organizing
* Negotiation
* Monitoring
* Evaluation
* Record keeping
* Problem solving
* Decision Making
* Resource utilization
* Resource mobilization

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Work values and ethics
* Company policies
* Company operations, procedures and standards
* Occupational Health and safety procedures
* Fundamental rights at work
* Personal hygiene practices
* Workplace communication
* Concept of time
* Time management
* Decision making
* Types of resources
* Work planning
* Resources and allocating resources
* Organizing work
* Monitoring and evaluation
* Record keeping
* Workplace problems and how to deal with them
* Gender mainstreaming
* HIV and AIDS
* Drug and substance abuse
* Leadership
* Safe work habits
* Professional growth and development
* Technology in the workplace
* Emerging issues
* Social media
* Terrorism
* National cohesion

###### **EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical aspects of Competency | Assessment requires evidence that the candidate:   1. Conducted self-management 2. Demonstrated interpersonal communication 3. Demonstrated critical safe work habits 4. Led small teams 5. Planned and organized work 6. Maintained professional growth and development 7. Demonstrated workplace learning 8. Demonstrated problem solving skills 9. Demonstrated workplace ethics |
| 1. Resource Implications | |  | | --- | | The following resources should be provided:   1. Access to relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place | |
| 1. Methods of Assessment | Competency in this unit may be assessed through:   1. Oral questioning 2. Portfolio of evidence 3. Third Party Reports 4. Written tests |
| 1. Context of Assessment | Competency may be assessed:   1. On-the-job 2. Off-the –job 3. During Industrial attachment |
| 1. Guidance information for assessment | | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

**DEMONSTRATE ENVIRONMENTAL LITERACY**

**UNIT CODE:** AGR/OS/PR/BC/06/5/A

**UNIT DESCRIPTION**

This unit describes the competencies required to demonstrate understanding of environmental literacy. It involves controlling environmental hazard, controlling control environmental pollution, complying with workplace sustainable resource use, evaluating current practices in relation to resource usage, identifying environmental legislations/conventions for environmental concerns, implementing specific environmental programs and monitoring activities on environmental protection/programs.

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms*** ***are elaborated in the Range*** |
| 1. Control environmental hazard | 1. ***Storage methods*** for environmentally***hazardous*** materials are strictly followed according to environmental regulations and OSHS. 2. ***Disposal methods*** of hazardous wastes are followed always according to environmental regulations and OSHS. 3. ***PPE*** is used according to OSHS. |
| 1. Control environmental Pollution control | 1. Environmental pollution ***control measures*** are compiled following standard protocol. 2. Procedures for solid waste management are observed according to Environmental Management and Coordination Act 1999 3. Methods for minimizing ***noise pollution*** is complied with based on Noise and Excessive Vibration Pollution and Control Regulations, 2009 |
| 1. Demonstrate sustainable resource use | 1. Methods for minimizing wastage are complied with. 2. Waste management procedures are employed following principles of 3Rs (Reduce, Reuse, Recycle) 3. Methods for economizing and reducing resource consumption are practiced as per the Environmental Management and Coordination Act 1999 |
| 1. Evaluate current practices in relation to resource usage | 1. Information on resource efficiency **systems and procedures** are collected and provided to the work group where appropriate. 2. Current resource usage is measured and recorded by members of the work group. 3. Current purchasing strategies are analyzed and recorded according to industry procedures. 4. Current work processes to access information and data is analyzed following enterprise protocol. |
| 1. Identify Environmental legislations/conventions for environmental concerns | 1. Environmental ***legislations/conventions*** and local ordinances are identified according to the different ***environmental aspects/impact*** 2. ***Industrial standard/environmental practices*** are described according to the different environmental concerns |
| 1. Implement specific environmental programs | 1. Programs/Activities are identified according to organizations policies and guidelines. 2. Individual roles/responsibilities are determined and performed based on the activities identified. 3. Problems/constraints encountered are resolved in accordance with organizations’ policies and guidelines 4. Stakeholders are consulted based on company guidelines |
| 1. Monitor activities on Environmental protection/Programs | 1. Activities are periodically monitored and evaluated according to the objectives of the environmental Program 2. Feedback from stakeholders are gathered and considered in proposing enhancements to the program based on consultations 3. Data gathered are analyzed based on evaluation requirements 4. Recommendations are submitted based on the findings 5. Management support systems are set/established to sustain and enhance the program 6. Environmental incidents are monitored and reported to concerned/proper authorities |

**RANGE**

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

|  |  |
| --- | --- |
| **Variable** | **Range** |
| 1. PPE may include but not limited to: | * Mask * Gloves * Goggles * Safety hat * Overall * Hearing protector * Safety boots |
| 1. Environmental pollution control measures may include but not limited to: | * Methods for minimizing or stopping spread and ingestion of airborne particles * Methods for minimizing or stopping spread and ingestion of gases and fumes * Methods for minimizing or stopping spread and ingestion of liquid wastes |
| 1. Waste management procedures may include but not limited to: | * Sorting * Storing of items * Recycling of items * Disposal of items |
| 1. Resources may include but not limited to: | * Electric * Water * Fuel * Telecommunications * Supplies * Materials |
| 1. Workplace environmental hazards may include but not limited to: | * Biological hazards * Chemical and dust hazards * Physical hazards |
| 1. Organizational systems and procedures may include but not limited to: | * Supply chain, procurement and purchasing * Quality assurance * Making recommendations and seeking approvals |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required Skills**

The individual needs to demonstrate the following skills:

* Observation
* Measuring
* Writing
* Communication
* Analytical
* Monitoring
* Evaluation

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Storage methods of environmentally hazardous materials
* Disposal methods of hazardous wastes
* Usage of PPE Environmental regulations
* OSHS
* Types of pollution
* Environmental pollution control measures
* Different solid wastes
* Solid waste management
* Different noise pollution
* Methods of minimizing noise pollution
* Solid Waste Act
* Methods of minimizing wastage
* Waste management procedures
* Economizing of resource consumption
* 3Rs principle
* Types of resources
* Techniques in measuring current usage of resources
* Calculating current usage of resources
* Types of workplace environmental hazards
* Environmental regulations
* Environmental regulations applying to the enterprise.
* Measurement and recording of current resource usage
* Analysis current work processes to access information and data Analysis of data and information
* Identification of areas for improvement
* Resource consuming processes
* Determination of quantity and nature of resource consumed
* Analysis of resource flow of different parts of the resource flow process
* Use/conversion of resources
* Causes of low efficiency of use
* Increasing the efficiency of resource use
* Inspection of resource use plans
* Regulations/licensing requirements
* Determine benefit/cost for alternative resource sources
* Benefit/costs for different alternatives
* Components of proposals
* Criteria on ranking proposals
* Regulatory requirements
* Proposals for improving resource efficiency
* Implementation of resource efficiency plans
* Procedures in monitor implementation
* Adjustments of implementation plan
* Inspection of new resource usage

**EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   1. Controlled environmental hazard 2. Controlled environmental pollution 3. Demonstrated sustainable resource use 4. Evaluated current practices in relation to resource usage 5. Demonstrated knowledge of environmental legislations and local ordinances according to the different environmental issues /concerns. 6. Described industrial standard environmental practices according to the different environmental issues/concerns. 7. Resolved problems/ constraints encountered based on management standard procedures 8. Implemented and monitored environmental practices on a periodic basis as per company guidelines 9. Recommended solutions for the improvement of the Program 10. Monitored and reported to proper authorities any environmental incidents |
| 1. Resource Implications | The following resources should be provided:   1. Workplace with storage facilities 2. Tools, materials and equipment relevant to the tasks (ex. Cleaning tools, cleaning materials, trash bags, etc.) 3. PPE 4. Manuals and references 5. Legislation, policies, procedures, protocols and local ordinances relating to environmental protection 6. Case studies/scenarios relating to environmental Protection |
| 1. Methods of Assessment | Competency in this unit may be assessed through:   1. Observation 2. Oral questioning 3. Written test 4. Interview/Third Party Reports 5. Portfolio of evidence |
| 1. Context of Assessment | Competency may be assessed:   1. On-the-job 2. Off-the –job 3. During Industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

**DEMONSTRATE OCCUPATIONAL SAFETY AND HEALTH PRACTICES**

**UNIT CODE:** AGR/OS/PR/BC/07/5/A

**UNIT DESCRIPTION**

This unit specifies the competencies required to identify workplace hazards and risk, identify and implement appropriate control measures and implement OSH programs, procedures and policies/ guidelines

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms are elaborated in the Range*** |
| 1. Identify workplace hazards and risk | 1. ***Hazards*** in the workplace are identified ***based their indicators*** 2. Risks and hazards are evaluated based on legal requirements. 3. ***OSH concerns*** raised by workers are addressed as per legal requirements. |
| 1. Control OSH hazards | 1. Hazard prevention ***and control measures*** are implemented as per legal requirement. 2. Risk assessment is conductedand a risk matrix developed based on likely impact. 3. ***Contingency measures***, including ***emergency procedures*** during workplace ***incidents and emergencies*** are recognized and established in accordance with organization procedures. |
| 1. Implement OSH programs | 1. Company OSH program are identified, evaluated and reviewed based on legal requirements. 2. Company OSH programs are implemented as per legal requirements. 3. Workers are capacity built on OSH standards and procedures as per legal requirements 4. ***OSH-related records*** are maintained as per legal requirements. |

**RANGE**

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

|  |  |
| --- | --- |
| **Variable** | **Range** |
| 1. Hazards may include but are not limited to: | * Physical hazards * Biological hazards * Chemical hazards * Ergonomics * Psychological factors * Physiological factors * Safety hazards * Unsafe workers’ act |
| 1. Indicators may include but are not limited to: | * Increased of incidents of accidents, injuries * Increased occurrence of sickness or health complaints/ symptoms * Common complaints of workers related to OSH * High absenteeism for work-related reasons |
| 1. Evaluation and/or work environment measurements may include but are not limited to: | * Health Audit * Safety Audit * Work Safety and Health Evaluation * Work Environment Measurements of Physical and Chemical Hazards |
| 1. OSH issues and/or concerns may include but are not limited to: | * Workers’ experience/observance on presence of work hazards * Unsafe/unhealthy administrative arrangements (prolonged work hours, no break time, constant overtime, scheduling of tasks) * Reasons for compliance/non-compliance to use of PPEs or other OSH procedures/policies/guidelines |
| 1. Prevention and control measures may include but are not limited to: | * Eliminate the hazard * Isolate the hazard * Substitute the hazard with a safer alternative * Use administrative controls to reduce the risk * Use engineering controls to reduce the risk * Use personal protective equipment * Safety, Health and Work Environment Evaluation * Periodic and/or special medical examinations of workers |
| 1. Safety gears /PPE (Personal Protective Equipment’s) may include but are not limited to: | * Arm/Hand guard, gloves * Eye protection (goggles, shield) * Hearing protection (ear muffs, ear plugs) * Hair Net/cap/bonnet * Hard hat * Face protection (mask, shield) * Apron/Gown/coverall/jump suit * Anti-static suits * High-visibility reflective vest |
| 1. Appropriate risk controls | * Eliminate the hazard altogether * Isolate the hazard from anyone who could be harmed * Substitute the hazard with a safer alternative * Use administrative controls to reduce the risk * Use engineering controls to reduce the risk * Use personal protective equipment |
| 1. Contingency measures may include but are not limited to: | * Evacuation * Isolation * Decontamination * Emergency personnel |
| 1. Emergency procedures may include but are not limited to: | * Fire drill * Earthquake drill * Basic life support/CPR * First aid * Spillage control * Decontamination of chemical and toxic * Disaster preparedness/management * Set of fire-extinguisher |
| 1. Incidents and emergencies may include but are not limited to: | * Chemical spills * Equipment/vehicle accidents * Explosion * Fire * Gas leak * Injury to personnel * Structural collapse * Toxic and/or flammable vapors emission. |
| 1. OSH-related Records may include but are not limited to: | * Medical/Health records * Incident/accident reports * Sickness notifications/sick leave application * OSH-related trainings obtained |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required Skills**

The individual needs to demonstrate the following skills:

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

**Required Knowledge**

The individual needs to demonstrate knowledge of:

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

**EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   1. Identified hazards in the workplace based their indicators 2. Evaluated workplace hazards based on legal requirements. 3. Addressed OSH concerns raised by workers as per legal requirements. 4. Implemented hazard prevention and control measures as per legal requirement. 5. Conducted risk assessment as per legal requirement. 6. Developed risk matrix based on likely impact. 7. Recognized and established contingency measures in accordance with organization procedures. 8. Identified, evaluated and reviewed company OSH program based on legal requirements. 9. Implemented company OSH programs as per legal requirements. 10. Capacity built workers on OSH standards and procedures as per legal requirements 11. Maintained OSH-related records as per legal requirements. |
| 1. Resource Implications | The following resources should be provided:   1. Access to relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place |
| 1. Methods of Assessment | Competency in this unit may be assessed through:   1. Observation 2. Oral questioning 3. Written test 4. Portfolio of Evidence 5. Interview 6. Third party report |
| 1. Context of Assessment | Competency may be assessed:   1. On-the-job 2. Off-the –job 3. During Industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

COMMON UNIT OF COMPETENCYPREPARE AND INTERPRET TECHNICAL DRAWINGS

**UNIT CODE:** AGR/OS/PR/CC/01/5/A

**UNIT DESCRIPTION**

This unit covers the competencies required to prepare and interpret technical drawings. It involves selecting, using and maintaining drawing equipment and materials and producing plain and solid geometry drawings.

**ELEMENTS AND PERFORMANCE CRITERIA**

| **ELEMENT** | **PERFORMANCE CRITERIA**  ***(Bold and italicized terms are elaborated in the Range)*** |
| --- | --- |
| 1. Use and maintain drawing equipment and materials | 1. ***Drawing materials*** are identified and gathered according to task requirements 2. Drawing equipment are used and maintained as per manufacturer’s instructions 3. Drawing materials are used as per workplace procedures 4. Waste materials are disposed in accordance with workplace procedures and ***environmental legislations*** 5. 1.6***Personal Protective Equipment*** is used according to occupational safety and health regulations |
| 2. Produce plane geometry drawings | 1. Different types of lines used in drawing and their meanings are identified according to standard drawing conventions 2. Different types of ***geometric forms*** are constructed according to standard conventions 3. Different types of angles are constructed according to principles of trigonometry 4. Different types of angles are measured using appropriate measuring tools |
| 3. Produce solid geometry drawings | 1. Freehand sketching of different types of geometric forms, tools, equipment, diagrams is conducted 2. Drawings of patterns are interpreted according to standard conventions 3. Patterns are developed in accordance with standard conventions |

**RANGE**

| **Variable** | **Range** |
| --- | --- |
| 1. Drawing materials may include but not limited to: | * Drawing Papers * Pencils * Erasers * Masking Tapes * Paper clips |
| 1. Environmental legislations may include but not limited to: | * EMCA 1999 * NCA |
| 1. Personal protective equipment may include but not limited to: | * Dust coats, * Closed leather shoes |
| 1. Geometric forms may include but not limited to: | * Circles * Triangles * Rectangles * Parallelogram * Polygons * Pyramids * Conic Sections * Prisms * Loci |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required skills**

The individual needs to demonstrate the following skills:

* Critical thinking
* Drawing
* Interpretation
* Drawing equipment handling
* Analysis and synthesis
* Communication
* Inter personal

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Drawing equipment and materials
* Freehand sketching
* Lettering
* Geometrical constructions
* Types of drawings
* Types of lines
* Sketches and drawings of simple patterns

###### **EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Applied and adhered to safety procedures   2. Cared and maintained drawing equipment   3. Interpreted circuit, assembly and lay out diagrams   4. Applied appropriate technical standards, used proper tools and equipment for a given task   5. Produced sketches and drawings |
| 1. Resource Implications | The following resources should be provided:   1. Access to relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Practical tests   2. Observation |
| 1. Context of Assessment | Competency may be assessed   1. Off the job 2. on the job 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

**CORE UNITS OF COMPETENCY**

**CONSTRUCT POULTRY PROCESSING PLANT**

**UNIT CODE:** AGR/OS/PR/CR/01/5

**UNIT DESCRIPTION:**

This unit specifies the competencies required to construct poultry processing plant. It involves designing, building and equipping poultry processing plant and maintaining processing plant equipment records.

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms are elaborated in the range.*** |
| 1. Build poultry processing plant | 1. Site of poultry processing plant is determined based on ***existing regulations*** 2. Site for poultry processing plant prepared for construction based on the design and ***site condition***. 3. Construction materials assembled based on the design. 4. Poultry processing plant built based on the design |
| 1. Acquire building materials | 1. Poultry processing plant equipment acquired based on company ***workplace procedures*** |
| 1. Equip poultry processing plant | 1. ***Poultry processing plant equipment*** assembled as per the design 2. Poultry processing plant equipment assembled as per the design |
| 1. Maintain processing plant equipment records | 1. Equipment maintained as per the manufacturer’s specifications 2. ***Processing plant records*** maintained as per the workplace procedures |

**RANGE**

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

|  |  |  |
| --- | --- | --- |
| **Variable** | **Range** | |
| 1. Existing regulations includes may include but not limited to: | * EMCA, 1999 * Meat control act Cap 356 * Public health Act Cap 242 |  |
| 1. Site condition includes may include but not limited to: | * Topography * Drainage * Soil characteristics * Wind direction | |
| 1. Workplace procedures may include but not limited to: | * Procurement processes * Company policies |  |
| 1. Poultry processing plant equipment may include but not limited to: | * Conveyor belt * Scales * Washing machines * Shackles * Crates * Stunning box * Neck severing knives * Bleeding troughs * Scalding tank * Plucker unit * Decapitator * Hock cutter * Hand wash facilities | |
| 1. Processing plant records may include but not limited to: | * Maintenance records * Chemical records * PPE records | |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required skills**

The individual needs to demonstrate the following skills:

* Negotiation
* Planning
* Multi-tasking
* Problem solving
* Time management
* Creativity

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Scale measurements
* Stocking density
* Animal welfare
* Existing poultry production legislations
* Topography

**EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Determined the site for poultry processing plant   2. Assembled construction materials   3. Built poultry processing plant   4. Acquired poultry processing plant equipment   5. Assembled poultry processing plant equipment   6. Maintained poultry processing plant equipment and records. |
| 1. Resource Implications | The following resources should be provided:   1. Access to relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Observation   2. Written tests   3. Oral questioning   4. Third party report |
| 1. Context of Assessment | Competency may be assessed   1. Off the job 2. on the job 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended. |

# PERFORM PRE-SLAUGHTER HANDLING

**UNIT CODE:** AGR/OS/PR/CR/02/5/A

**UNIT DESCRIPTION:**

This unit specifies the competencies required to perform pre-slaughter handling. It involves selecting poultry sources, transporting poultry for slaughter, receiving of poultry for slaughter and maintaining pre-slaughter records.

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms are elaborated in the range.*** |
| 1. Select poultry sources | 1. Poultry sources selected based on ***placement records*** identified as per contractual agreement 2. ***Health records*** examined based on veterinary records 3. No objection permit issued based on veterinary requirements |
| 1. Transport poultry for slaughter | 1. Movement permit obtained based on ***veterinary requirements*** 2. Poultry flock body weight determined based on health card records 3. Poultry crated for transportation as per the body weight 4. Poultry transportation ***control measures*** instituted 5. Poultry transported to processing plant based on SOPs |
| 1. Receive poultry for slaughter | 1. Poultry transport control measures ascertained based on workplace procedures 2. Live poultry weighed according to ***workplace procedures*** 3. Poultry stress managed based on ***SOPs*** 4. Ante-mortem inspection performed based on the veterinary regulations |
| 1. Maintain poultry pre-slaughter records | 1. ***Pre-slaughter equipment*** maintained as per the manufacturer’s specifications 2. Pre-slaughter records maintained as per the workplace procedures |

**RANGE**

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

|  |  |  |
| --- | --- | --- |
| **Variable** | **Range** | |
| 1. Placement records includes but not limited to: | * Number of day-old chicks acquired by farm for rearing * Invoices * Vaccination records | |
| 1. Health records includes but not limited to: | * Daily weight gains * Daily feed consumption * Mortalities * Medications |  |
| 1. Veterinary requirements include but not limited to: | * No objection * Movement permits | |
| 1. Control measures includes but not limited to: | * PPEs * Carrier door seals | |
| 1. Workplace procedures includes but not limited to: | * Company policies * Poultry handling | |
| 1. SOPs includes but not limited to: | * Poultry stress management * Stunning | |
| 1. Pre-slaughter equipment includes but not limited to: | * Weighing scales * Catching crate * Washing machines | |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required skills**

The individual needs to demonstrate the following skills:

* Communication
* Supervisory
* Animal handling
* Observation
* Poultry slaughter

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Scales and measurements
* Supplies management
* Occupational safety and health
* Stocking density
* Air quality
* Water quality
* Animal welfare
* Poultry transportation requirements
* Legal and regulatory requirements
* Record keeping
* Poultry behavior
* Environmental management
* Carcass quality

**EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Selected poultry sources   2. Examined health records   3. Issued no objection   4. Obtained movement   5. Weighed poultry flock at source   6. Instituted poultry transportation measures   7. Transported crated poultry   8. Evaluated poultry transportation control measures   9. Weighed poultry at processing plant   10. Managed poultry stress   11. Performed ante-mortem inspection on poultry   12. Maintained poultry pre-slaughter equipment and records |
| 1. Resource Implications | The following resources should be provided:   1. Access to relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Observation   2. Written tests   3. Oral questioning   4. Third party report |
| 1. Context of Assessment | Competency may be assessed   1. Off the job 2. on the job 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended. |

# PERFORM POULTRY SLAUGHTER

**UNIT CODE:** AGR/OS/PR/CR/03/5/A

**UNIT DESCRIPTION:**

This unit specifies the competencies required to perform poultry slaughter. It involves restraining, stunning, bleeding, defeathering scalded, decapitating poultry carcasses, evisceration and maintaining poultry slaughter equipment and records.

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms are elaborated in the range.*** |
| 1. Restrain poultry for slaughter | 1. ***Tools and equipment*** for restraining poultry identified and gathered as per workplace requirements 2. Poultry are picked and shackled as per the SOPs |
| 1. Stun restrained poultry | 1. ***Tools, equipment and resources for stunning*** identified and gathered as per workplace requirements 2. Restrained poultry stunned as per the SOPs |
| 1. Bleed stunned poultry | 1. ***Tools, equipment and resources for bleeding*** identified and gathered as per ***SOPs*** 2. Stunned poultry bled as per SOPs 3. Blood collected and disposed as per SOPs |
| 1. De-feather scalded poultry | 1. Tools, equipment and resources for de-feathering identified and gathered as per workplace requirements 2. Poultry carcasses scalded per veterinary regulations 3. Scalded poultry de-feathered as per SOPs 4. Feathers collected and disposed as per relevant regulatory authorities |
| 1. Decapitate poultry carcasses | 1. Tools, equipment and resources for decapitation identified and gathered as per workplace requirements 2. Decapitated carcasses washed as per the SOPs 3. Heads collected for disposal as per the SOPs |
| 1. Eviscerate inspected poultry | 1. Tools, equipment and resources for evisceration identified and gathered as per workplace requirements 2. Feet cut off for disposal based on SOPs 3. Widening and opening up the vent as per the SOPs. 4. Giblets (Liver, gizzards and heart) separated from the intestines as per the SOPs 5. Intestines collected for disposal as per the SOPs 6. Gizzards cleaned and packaged as per the SOPs 7. Crop and gullet collected for disposal as per the SOPs 8. Lungs and sucked off and collected for disposal as per the SOPs 9. Necks harvested for packaging as per the SOPs 10. Eviscerated poultry carcasses cleaned as per the SOPs. 11. Cleaned eviscerated poultry carcass chilled as per the SOPs |
| 1. Maintain poultry slaughter records | 1. ***Poultry slaughter records*** identified and gathered as per workplace procedures 2. Poultry slaughter records maintained as per the workplace procedures |

**RANGE**

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

|  |  |
| --- | --- |
| **Variable** | **Range** |
| 1. Tools and equipment for restraining poultry include but not limited to: | * Catching crate * Weighing scales * Shackles |
| 1. SOPs include but not limited to: | * Meat control Act * Bureau of Halal * HACCP * PPEs * GHP * NEMA * Public Health Act * ISO * Work place policy |
| 1. Tools and equipment for stunning include but not limited to: | * Stunning box * Scalding tank * Plucker unit * Decapitator * Washer |
| 1. Tools and equipment for bleeding include but not limited to: | * Knives * Blood collection troughs * Blood collection tank |
| 1. Poultry slaughter records include but not limited to: | * Condemnation records * Daily kill records |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required skills**

The individual needs to demonstrate the following skills:

* Communication
* Supervisory
* Animal handling
* Observation

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Scales and measurements
* Occupational safety and health
* Poultry nutrition and feeding
* Air quality
* Water quality
* Animal welfare
* Poultry transportation requirements
* Legal and regulatory requirements
* Marketing
* Contract farming requirements
* Record keeping
* Carcass quality
* Poultry breeds
* Poultry growth
* Poultry behavior
* Avian anatomy and physiology
* Hazard Analysis Critical Control Points (HACCP)

**EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Identified and gathered the tools and equipment for poultry slaughter   2. Restrained poultry   3. Picked and shackled poultry   4. Stunned poultry   5. Bled poultry   6. Scalded carcasses   7. De-feathered carcasses   8. Decapitated carcasses   9. Eviscerated inspected poultry   10. Maintained poultry slaughter records |
| 1. Resource Implications | The following resources should be provided:   1. Access to relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Observation   2. Written tests   3. Oral questioning   4. Third party report |
| 1. Context of Assessment | Competency may be assessed   1. Off the job 2. on the job 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended. |

# GRADE POULTRY MEAT

**UNIT CODE:** AGR/OS/PR/CR/04/5/A

**UNIT DESCRIPTION:**

This unit specifies the competencies required to grade poultry meat. It involves rating chilled carcass, packaging poultry meat and maintaining grading records.

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms are elaborated in the range.*** |
| 1. Rate chilled carcass | 1. Tools, equipment and resources for weighing identified and gathered as per workplace requirements 2. Chilled carcasses weighed as per the SOPs 3. Weighed chilled carcass graded as per ***carcass body condition.*** 4. Graded carcasses cold dressed as per the SOPs |
| 1. Package poultry meat | 1. Tools, equipment and resources for weighing identified and gathered as per ***workplace requirements*** 2. Graded carcass portioned as per the workplace procedures 3. Portioned poultry meat packaged as per the workplace procedures 4. Packaged poultry meat frozen as per the SOPs |
| 1. Maintain grading records | 1. ***Grading records*** maintained as per workplace procedures 2. Grading equipment maintained as per manufacturers’ specifications |

**RANGE**

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

|  |  |  |
| --- | --- | --- |
| **Variable** | **Range** | |
| 1. Carcass body condition may include but not limited to: | * Weight * Broken limbs * Emaciation | |
| 1. Workplace requirements may include but not limited to: | * Company policy * Poultry handling | |
| 1. Grading records may include but not limited to: | * Score cards * Body weight |  |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required skills**

The individual needs to demonstrate the following skills:

* Supervisory
* Communication
* Observation
* Grading
* Poultry slaughter

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Scales and measurements
* Drainage
* Occupational safety and health
* Air quality
* Water quality
* Animal welfare
* Hygiene methods and practices
* Legal and regulatory requirement
* Marketing
* Record keeping
* Carcass quality
* Avian anatomy and physiology
* Hazard Analysis Critical Control Points (HACCP)

**EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Gathered and used tools, equipment and resources   2. Weighed chilled carcasses   3. Graded weighed carcasses   4. Cold dressed graded carcasses   5. Portioned graded carcasses   6. Packaged portioned poultry meat   7. Froze packaged poultry meat   8. Maintained grading equipment and records. |
| 1. Resource Implications | The following resources should be provided:   1. Access to relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Observation   2. Written tests   3. Oral questioning   4. Third party report |
| 1. Context of Assessment | Competency may be assessed   1. Off the job 2. on the job 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended. |

# PRODUCE POULTRY-BASED PRODUCTS

**UNIT CODE:** AGR/OS/PR/CR/05/5/A

**UNIT DESCRIPTION:**

This unit specifies the competencies required to produce poultry-based products. It involves marinating graded poultry portions, processing poultry-based mixture, packaging processed portions and maintaining poultry products records.

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms are elaborated in the range.*** |
| 1. Marinate graded portions | 1. ***Tools, equipment and resources*** ***for marinating*** identified and gathered as per workplace requirements 2. Spices weighed as per workplace requirements 3. Water added to the spices as per workplace requirements 4. Meat portions immersed into marinade as per workplace requirements 5. Portions removed from marinate as per workplace requirements 6. Marinated portions vacuum packed and frozen as per workplace requirements |
| 1. Process poultry-based mixture | 1. Tools, equipment and resources for processing poultry-based mixture identified and gathered as per workplace requirements 2. De-boned poultry potions added to mincer as per workplace requirements 3. Mincer ran as per workplace requirements 4. Minced meat collected as per workplace requirements 5. Collected minced meat added to bowl chopper as per workplace requirements 6. Mixture filled into collagen casings as per ***workplace requirements*** 7. Unsmoked poultry-based products packed and stored poultry-based products 8. Smoked poultry-based products passed through metal detector and vacuum packed as per workplace requirements |
| 1. Package processed portions | 1. ***Tools, equipment*** and ***resources for packaging*** processed portions identified and gathered as per workplace requirements 2. Processed portions weighed as per workplace requirements 3. Weighed processed portions vacuum packed and frozen as per workplace requirements |
| 1. Maintain poultry products records | 1. Processed poultry-based products records maintained as per workplace procedures 2. Processing equipment maintained as per manufacturers’ specifications |

**RANGE**

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

|  |  |  |
| --- | --- | --- |
| **Variable** | **Range** | |
| 1. Tools, equipment for marinating may include but not limited to: | * Weighing scales * Scoops * Mixers * Marination tanks * Packaging materials * Vacuum packers * Food grade storage crates | |
| 1. Workplace requirements of processing poultry-based products may include but not limited to: | * Type and size of casings * Unsmoked poultry products * Smoked poultry products as per SOPs |  |
| 1. Tools, equipment for packaging processed poultry products may include but not limited to: | * Packaging material * Vacuum packer * Metal detector * Holding crates |  |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required skills**

The individual needs to demonstrate the following skills:

* Communication
* Supervisory
* Observation
* Grading
* Mixing
* Poultry butchery operations

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Scales and measurements
* Occupational safety and health
* Air quality
* Water quality
* Hygiene methods and practices
* Legal and regulatory requirements
* Record keeping
* Environmental management
* Microbiology
* Toxicology
* Hazard Analysis Critical Control Points (HACCP)

**EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Identified, gathered and used equipment and resources   2. Weighed spices   3. Added water to the spices   4. Immersed and removed meat portions from marinate   5. Vacuum packed and froze meat portions   6. Deboned and minced meat portions   7. Filled mixture into collagen casings   8. Packed and stored unsmoked poultry-based products   9. Passed smoked poultry-based products through metal detectors and packed them   10. Maintained processed poultry-based product records and equipment |
| 1. Resource Implications | The following resources should be provided:   1. Access to relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Observation   2. Written tests   3. Oral questioning   4. Third party report |
| 1. Context of Assessment | Competency may be assessed   1. Off the job 2. on the job 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended. |

# MANAGE POULTRY MEAT SAFETY

**UNIT CODE:** AGR/OS/PR/CR/06/5/A

**UNIT DESCRIPTION:**

This unit specifies the competencies required to manage poultry meat safety. It involves monitoring personnel health status, maintaining processing plant hygiene and maintaining poultry meat safety records.

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms are elaborated in the range.*** |
| 1. Monitor personnel health status | 1. ***Medical certificates*** ascertained as per public health requirements 2. Sick personnel isolated as per public health requirements 3. ***PPEs*** provided as per workplace requirements 4. Personnel regularly trained on hygiene as per workplace requirements |
| 1. Maintain processing plant hygiene | 1. PPEs are worn as per ***workplace requirements*** 2. Hands sanitized as per ***public health requirements*** 3. Foot ware disinfected as per workplace requirements 4. Processing plant equipment disinfected as per workplace requirements 5. Microbial contamination tested as per SOPs |
| 1. Maintain poultry meat safety records | 1. ***Poultry meat safety records*** maintained as per workplace procedures 2. Poultry meat safety equipment maintained as per manufacturers’ specifications |

**RANGE**

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

|  |  |  |
| --- | --- | --- |
| **Variable** | **Range** | |
| 1. Medical certificates may include but not limited to: | * Sputum results * Stool tests * Blood test * Urinalysis | |
| 1. PPEs may include but not limited to: | * Gumboots * Gloves * Dust coats * Face masks * Hair nets * Goggles | |
| 1. Workplace requirements may include but not limited to: | * company policies * Code of conduct |  |
| 1. Public health requirements may include but not limited to: | * Public health act Cap 242 * Meat control act Cap 356 |  |
| 1. Poultry meat safety records may include but not limited to: | * HACCP * Microbiological test results * Water quality test results |  |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required skills**

The individual needs to demonstrate the following skills:

* Communication
* Supervisory
* Observation

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Drainage
* Occupational safety and health
* Air quality
* Water quality
* Immunology
* Detergents and disinfectants
* Methods of cleaning and disinfection
* Legal and regulatory requirements
* Record keeping
* Carcass quality
* Environmental management
* Microbiology
* Toxicology
* Pharmacology
* Hazard Analysis Critical Control Points (HACCP)

**EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Ascertained medical certificates   2. Isolated sick personnel   3. Provided PPEs   4. Regularly trained personnel on hygiene   5. Wore PPEs   6. Sanitized hands   7. Disinfected foot ware   8. Disinfected processing plant equipment   9. Tested for microbial contamination   10. Maintained poultry meat safety equipment and records. |
| 1. Resource Implications | The following resources should be provided:   1. Access to relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Observation   2. Written tests   3. Oral questioning   4. Third party report |
| 1. Context of Assessment | Competency may be assessed   1. Off the job 2. on the job 3. During industrial attachment   . |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended. |

# MANAGE POULTRY BY-PRODUCTS

**UNIT CODE:** AGR/OS/PR/CR/07/5/A

**UNIT DESCRIPTION:**

This unit specifies the competencies required to manage poultry by-products. It involves rendering poultry blood, managing poultry waste, and managing poultry processing plant waste water and maintaining poultry by-products records.

**ELEMENTS AND PERFORMANCE CRITERIA**

|  |  |
| --- | --- |
| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms are elaborated in the range.*** |
| 1. Render poultry blood | 1. Collected blood drained into rendering plant as per SOPs 2. Blood ***heat treated*** as per SOPs 3. Blood meal and ash collected as per SOPs |
| 1. Manage poultry waste | 1. Feathers collected and packed as per SOPs 2. Intestines collected and disposed as per SOPs 3. Poultry gastro-intestinal (GI)contents manured as per SOPs 4. Poultry heads collected and packed as per SOPs 5. Poultry feet collected and packed as per SOPs 6. ***Condemned carcasses*** disposed-off into condemnation pit as per SOPs |
| 1. Manage poultry processing plant waste water | 1. ***Waste water*** collected into sedimentation tanks as per SOPs 2. Collected waste water treated as per SOPs 3. Treated waste water released as per SOPs |
| 1. Maintain poultry by-products records | 1. ***Poultry by-product records*** maintained as per workplace procedures |

**RANGE**

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

|  |  |  |
| --- | --- | --- |
| **Variable** | **Range** | |
| 1. Heat treated in poultry blood rendering may include but not limited to: | * Sterilizing * Dehydrating * Oil extrusion | |
| 1. Condemned poultry carcasses may include but not limited to: | * Skin wounds * Insufficient bleeding * Emaciation * Over scalded | |
| 1. Waste water from poultry processing plant may include but not limited to: | * Detergents * Blood * Meat and fat pieces * Impurities |  |
| 1. Poultry by-product records may include but not limited to: | * Types of by-products * Quantities of by- products * Handling of by-products * Equipment inventory * Equipment maintenance records * By-products collection schedules |  |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required skills**

The individual needs to demonstrate the following skills:

* Communication
* Supervisory
* Observation
* Report writing

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Water drainage systems
* Occupational safety and health
* Water quality
* Feed quality
* Hygiene methods and practices
* Legal and regulatory requirements
* Record keeping
* Environmental management
* Hazard Analysis Critical Control Points (HACCP)

**EVIDENCE GUIDE**

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

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| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Collected and heat-treated poultry blood   2. Collected and packed feathers   3. Collected and disposed intestines   4. Manured gastro intestinal contents   5. Collected and packed poultry heads and feet   6. Disposed condemned carcasses   7. Collected, treated and released poultry waste water   8. Maintained poultry by-product records. |
| 1. Resource Implications | The following resources should be provided:   1. Access to relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Observation   2. Written tests   3. Oral questioning   4. Third party report |
| 1. Context of Assessment | Competency may be assessed   1. Off the job 2. on the job 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended. |

# PERFORM ADMINISTRATIVE DUTIES

**UNIT CODE:** AGR/OS/PR/CR/08/5/A

**UNIT DESCRIPTION:**

This unit specifies the competencies required to perform administrative duties. It involves acquiring poultry firm certification, managing firm personnel, managing firm supplies and maintaining good management practices (GMPs).

**ELEMENTS AND PERFORMANCE CRITERIA**

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| **ELEMENT**  These describe the key outcomes which make up workplace function. | **PERFORMANCE CRITERIA**  These are assessable statements which specify the required level of performance for each of the elements.  ***Bold and italicized terms are elaborated in the range.*** |
| 1. Acquire poultry firm certification | 1. Confirm all the poultry farm structures and facilities are set-up as per poultry production requirement. 2. Confirm all the bio security measures are in place as per SOPs 3. Application for poultry firm certification inspection is done as per ***veterinary regulations***. |
| 1. Manage firm personnel | 1. Hiring carried out a per ***human resource requirements*** 2. Induction and duty allocation done as per farm practices. 3. Supervision and training needs assessment (TNA) are done as per farm practices 4. Performance appraisal and ***motivation*** as per farm practices 5. ***Staff discipline*** conducted as per human resources regulations. |
| 1. Manage firm supplies | 1. Requisitioning and purchasing of firm supplies are done as per work place practices. 2. Firm supplies are received as per the work place practices. 3. Inventory records are kept as per work place requirement |
| 1. Maintain good management practices (GMPs). | 1. ***Administrative records*** are kept as per work place practices. 2. ***Good management practices*** are determined based on the work place requirement. 3. Good management practices are executed as per work place practices. |

**RANGE**

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

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| **Variable** | **Range** | |
| 1. Veterinary regulations may include but not limited to: | * Hatchery and breeding farm inspection protocol * Animal diseases Act |  |
| 1. human resource requirements may include but not limited to: | * Level of training * Skills * Staffing requirement | |
| 1. Motivation may include but not limited to: | * Rewards * Promotion * Conducive Work place environment | |
| 1. Staff discipline may include but not limited to: | * Firing * Warning * Suspension | |
| 1. Administrative records may include but not limited to: | * Muster Roll * Financial records * Ledger books | |
| 1. Good management practices may include but not limited to: | * Communication * Procurement * Team work | |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required skills**

The individual needs to demonstrate the following skills:

* Analytical thinking
* Communication
* Negotiation
* Decision making
* Leadership
* Negotiation
* Problem solving
* Public relations
* Recording
* Supervisory
* Time management

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Poultry house construction and structures
* Bio-security measures
* Human resource management
* Supplies and Procurement
* Book-keeping
* Leadership management

**EVIDENCE GUIDE**

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

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| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Poultry firm certification obtained   2. Right personnel recruited   3. Poultry firm tasks performed correctly   4. Quality supplies are obtained and utilized appropriately   5. Good management practices are observed. |
| 1. Resource Implications | The following resources should be provided:   1. Access to relevant workplace where assessment can take place 2. Appropriately simulated environment where assessment can take place |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Observation   2. Written tests   3. Oral questioning   4. Third party report |
| 1. Context of Assessment | Competency may be assessed   1. Off the job 2. on the job 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job roles is recommended. |