

**REPUBLIC OF KENYA**

**COMPETENCY BASED CURRICULUM**

**FOR**

 **ABATTOIR OPERATIONS**

 **LEVEL 4**



TVET CDACC

P.O. BOX 15745-00100

NAIROBI

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# FOREWORD

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

Reforms in the education sector are necessary for the achievement of Kenya Vision 2030 and meeting the provisions of the Constitution of Kenya 2010. The education sector had to be aligned to the Constitution and this resulted in the formulation of the Policy Framework for Reforming Education. A key feature of this policy is the radical change in the design and delivery of the TVET training. This policy document requires that training in TVET be competency based, curriculum development be industry led, certification be based on demonstration of competence and mode of delivery allows for multiple entry and exit in TVET programmes.

These reforms demand that Industry takes a leading role in curriculum development to ensure the curriculum addresses its competence needs. It is against this background that this Curriculum has been developed.

It is my conviction that this curriculum will play a great role towards development of competent human resource for the meat sector’s growth and sustainable development.

**PRINCIPAL SECRETARY, VOCATIONAL AND TECHNICAL TRAINING**

**MINISTRY OF EDUCATION**

# PREFACE

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

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

TVET Curriculum Development, Assessment and Certification Council (TVET CDACC) in conjunction with meat Sector Skills Advisory Committee (SSAC have developed this curriculum.

This curriculum is designed and organized with an outline of learning outcomes; suggested delivery methods, training/learning resources and methods of assessing the trainee’s achievement. The curriculum is competency-based and allows multiple entry and exit to the course.

I am grateful to the Council Members, Council Secretariat, meat technology SSAC, expert workers and all those who participated in the development of this curriculum.

**CHAIRPERSON, TVET CDACC**

# ACKNOWLEDGEMENT

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

I recognize with appreciation the role of the meat Sector Skills Advisory Committee (SSAC) in ensuring that competencies required by the industry are addressed in the curriculum. I also thank all stakeholders in the meat sector for their valuable input and all those who participated in the process of developing this curriculum.

I am convinced that this curriculum will go a long way in ensuring that workers in print meat will acquire competencies that will enable them to perform their work more efficiently.

**COUNCIL SECRETARY/CEO**

**TVET CDACC**

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# ACRONYMS AND ABREVIATIONS

|  |  |
| --- | --- |
| AHITI | Animal Health and Industry Training Institute |
| ATVET | Agricultural Technical and Vocational Education and Training |
| AU - IBAR | African Union – Inter African Bureau for Animal Resources |
| CAADP | Comprehensive Africa Agricultural Development Programme |
| 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 |
| 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 |
| MoALF&I | Ministry of Agriculture, Livestock, Fisheries and Irrigation |
| MoE | Ministry of Education  |
| MTI | Meat Training Institute |
| NEMA | National Environmental Management Authority |
| NEPAD | New Partnerships for African Development |
| NPCA | NEPAD Planning and Coordinating Agency |
| OIE | World Organization for Animal Health |
| OS | Occupational Standard |
| OSH | Occupational Safety and Health |
| PPE | Personal Protective Equipment |
| SOP | Standard Operation Procedures |
| TVET | Technical and Vocational Education and Training |
| TVETA | Technical and Vocational Education and Training Authority |

# KEY TO UNIT CODE

 **MT/ CU/ AB/ BC/ 01/ 4 /A**

Industry or sector

Occupational Standards

Curriculum

Type of competency

Competency number

Competency level

Version control

# COURSE OVERVIEW

Abattoir OperationsCertificate Level 4 qualification consists of units of learning that a person must achieve to perform pre-slaughter care, slaughter meat animals, manage edible abattoir products and inedible abattoir products. It also enables an individual to manage abattoir hygiene.

The units of learning leading to Abattoir OperatorCertificate Level 4 qualification include the following seven basic and four core:

**Basic Units of Learning**

|  |  |  |  |
| --- | --- | --- | --- |
| **Unit Code** | **Unit Title** | **Duration in Hours** | **Credit Factor** |
| MT/CU/AB/BC/01/4/A | Communication skills | 20 | 2 |
| MT/CU/AB/BC/02/4/A | Numeracy skills | 25 | 3 |
| MT/CU/AB/BC/03/4/A | Digital literacy | 35 | 4 |
| MT/CU/AB/BC/04/4/A | Entrepreneurial skills | 60 | 6 |
| MT/CU/AB/BC/05/4/A | Employability skills | 30 | 3 |
| MT/CU/AB/BC/06/4/A | Environmental literacy | 20 | 2 |
| MT/CU/AB/BC/07/4/A | Occupational safety and health practices | 20 | 2 |
| **Total** | **210** | **22** |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Unit Code** | **Unit Title** | **Duration in Hours** | **Credit Factor** |
| MT/CU/AB/CR/01/4/A | Pre-slaughter operations | 60 | 6 |
| MT/CU/AB/CR/02/4/A | Slaughter operations  | 80 | 8 |
| MT/CU/AB/CR/03/4/A | Edible abattoir products management | 70 | 7 |
| MT/CU/AB/CR/04/4/A | Inedible abattoir products management  | 70 | 7 |
| MT/CU/AB/CR/05/4/A | Abattoir hygiene management | 60 | 6 |
|  | Industrial attachment | 300 | 30 |
| **Total** | **640** | **64** |
| **GRAND TOTAL** | **850** | **86** |

The core units of learning are independent of each other and may be taken independently.

The total duration of the course is **850** hours including industrial attachment

**Entry Requirements**

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

1. Slaughterhouse attendant, Artisan Certificate Level 3

Or

1. Attained KCSE with a mean grade of E

Or

1. Equivalent qualifications as determined by Kenya National Qualifications Authority (KNQA)

**Assessment**

The course will be assessed at two levels:

1. **Internal assessment**: conducted continuously by the trainer (internal assessor) who is monitored by an accredited internal verifier.
2. **External assessment:** conducted by an accredited external assessor who is monitored by an accredited external verifier.

The assessors and verifiers are accredited by TVET CDACC which also coordinates external assessment.

**Certification**

On successful completion of a unit of learning, a trainee will be issued with a Certificate of Competence and on successful completion of all units of learning a trainee will be awarded a Abattoir Operations Certificate Level 4 qualification. These certificates will be issued by TVET CDACC in conjunction with training provider.

# BASIC UNITS OF LEARNING

##

# COMMUNICATION SKILLS

**UNIT CODE:** MT/CU/AB/BC/01/4/A

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Demonstrate Communication Skills

**Duration of Unit:** 20 Hours

**Unit Description**

This unit covers the competencies required demonstrate communication skills. It involves obtaining and conveying workplace information, completing relevant work-related documents, communicating information about workplace processes, leading workplace discussion and communicating workplace issues.

**Summary of Learning Outcomes**

1. Obtain and convey workplace information
2. Complete relevant work-related documents
3. Communicate information about workplace processes
4. Lead workplace discussions
5. Identify and communicate issues arising in the workplace

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

|  |  |  |
| --- | --- | --- |
| **Learning Outcome** | **Content** | **Suggested Assessment Methods** |
| 1. Obtain and convey workplace information
 | * Communication process
* Modes of communication
* Medium of communication
* Effective communication
* Barriers to communication
* Flow of communication
* Sources of information
* Types of questions
* Organizational policies
* Workplace etiquette
* Ethical work practices in handling communication
 | * Interview
* Third party reports
 |
| 1. Complete relevant work-related documents
 | * Types and purposes of workplace documents and forms
* Methods used in filling forms and documents
* Recording workplace data
* Process of distributing workplace forms and documents
* Report writing
* Types of workplace reports
 | * Interview
* Third party reports
 |
| 1. Communicate information about workplace processes
 | * Communication process
* Modes of communication
* Medium of communication
* Effective communication
* Barriers to communication
* Flow of communication
* Sources of information
* Organizational policies
* Organization requirements for written and electronic communication methods
* Report writing
* Effective questioning techniques (clarifying and probing)
* Workplace etiquette
* Ethical work practices in handling communication
 | * Interview
* Portfolio
 |
| 1. Lead workplace discussion
 | * Methods of discussion e.g.
	+ Coordination meetings
	+ Toolbox discussion
	+ Peer-to-peer discussion
* Solicitation of response
 | * Interview
* Third party reports
 |
| 1. Identify and communicate issues arising in the workplace
 | * Identification of problems and issues
* Organizing information on problems and issues
* Relating problems and issues
* Communication barriers affecting workplace discussions
 | * Interview
* Portfolio
 |

**Suggested Methods of Instructions**

* Direct instruction
* Demonstration
* Practice assignment
* Discussion
* Role play
* Brainstorming

**Recommended Resources**

* Desktop computers/laptops
* Internet connection
* Projectors
* Telephone
* Report writing templates

# NUMERACY SKILLS

**UNIT CODE:** MT/CU/AB/BC/02/4/A

**Relationship to Occupational Standards:**

This unit addresses the Unit of Competency: Demonstrate Numeracy Skills

**Duration of Unit:** 25hours

**Unit Description**

This unit covers the competencies required to demonstrate numeracy skills. It involves identifying and using whole numbers and simple fractions, decimals and percentages for work, identifying, measuring and estimating familiar quantities for work, reading and using familiar maps, plans and diagrams for work, identifying and describing common 2D and some 3D shapes for work, constructing simple tables and graphs for work using familiar data and identifying and interpreting information in familiar tables, graphs and charts for work.

**Summary of Learning Outcomes**

1. Identify and use whole numbers and simple fractions, decimals and percentages for work
2. Identify, measure and estimate familiar quantities for work
3. Read and use familiar maps, plans and diagrams for work
4. Identify and describe common 2D and some 3D shapes for work
5. Construct simple tables and graphs for work using familiar data
6. Identify and interpret information in familiar tables, graphs and charts for work

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

|  |  |  |
| --- | --- | --- |
| **Learning Outcome** | **Content** | **Suggested Assessment Methods** |
| 1. Identify and use whole numbers and simple fractions, decimals and percentages for work
 | * Whole numbers
* Simple fractions
* Decimals
* Percentages
* Sizes
* Problem solving methods
* Calculations using the 4 operations
* Recording and communicating numerical information
 | * Written
* Practice assignments

  |
| 2. Identify, measure and estimate familiar quantities for work | * Measurement information
* Units of measurement
* Estimate familiar and simple amounts
* Selection of appropriate measuring equipment
* Calculate using familiar units of measurement
* Check measurements and results against estimates
* Using informal and some formal mathematical and general language
* Record or report results
 | * Written
* Practice assignments
 |
| 3. Read and use familiar maps, plans and diagrams for work | * Maps, plans and diagrams
* Locate items and places in familiar maps, plans and diagrams
* Recognize common symbols and keys in familiar maps, plans and diagrams
* Direction and location of objects, or route or places
* Use of informal and some formal oral mathematical language and symbols
 | * Practical test
* Written
 |
| 4. Identify and describe common 2D and some 3D shapes for work | * Common 2D shapes and 3D shapes
* Classification of common 2D shapes and designs
* Description of Use informal and some formal language to describe common two-dimensional shapes and some common three-dimensional shapes
* Construction of common 2D shapes
* Match common 3D shapes to their 2D sketches or nets
 | * Written
* Practical test
 |
| 5. Construct simple tables and graphs for work using familiar data | * Types of graphs
* Determination of data to be collected
* Selection of data collection method
* Collection of data
* Determination of variables from the data collected
* Order and collate data
* Construct a table and enter data
* Construct a graph using data from table
* Check results
* Report or discuss graph information related to work using informal and some formal mathematical and general language
 | * Written
* Practical test
 |
| 6. Identify and interpret information in familiar tables, graphs and charts for work | * Tables construction and labeling
* i.e. title, headings, rows and columns
* Interpreting information and data in simple tables
* Relaying information of relevant workplace tasks on/in a table
* Identify familiar graphs and charts in familiar texts and contexts
* Locate title, labels, axes, scale and key from familiar graphs and charts
* Identify and interpret information and data in familiar graphs and charts
* Relate information to relevant workplace tasks
 | * Written
* Practical test
 |

**Suggested Methods of Instructions**

* Instructor led facilitation of theory
* Practical demonstration of tasks by trainer
* Practice by trainees/ role play
* Discussion
* Observations and comments and corrections by trainers

**Recommended Resources**

* Computers
* Stationery
* Charts
* Video clips
* Audio tapes
* LCD projectors
* Standard operating and/or other workplace procedures manuals
* Specific job procedures manuals
* Projectors
* Writing boards
* Mathematical tables

# DIGITAL LITERACY

**UNIT CODE:** MT/CU/AB/BC/03/4/A

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Demonstrate Digital Literacy

**Duration of Unit:** 35 hours

**Unit Description**

This unit covers the competencies required to demonstrate digital literacy in a working environment. It entails identifying computer software and hardware, applying security measures to data, hardware, software, applying computer software in solving task sand applying internet and email in communication at workplace.

**Summary of Learning Outcomes**

1. Identify computer software and hardware
2. Apply security measures to data, hardware and software
3. Apply computer software in solving tasks
4. Apply internet and email in communication at workplace

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

|  |  |  |
| --- | --- | --- |
| **Learning Outcome** | **Content** | **Suggested Assessment Methods** |
| 1. Identify computer hardware and software
 | * Meaning of a computer
* Functions of a computer
* Components of a computer
* Classification of computers
 | * Written tests
* Oral
* Observation
 |
| 1. Apply security measures to data, hardware and software
 | * Data security and control
* Security threats and control measures
* Types of computer crimes
* Detection and protection against computer crimes
 | * Written tests
* Oral presentation
* Observation
* Projects
 |
| 1. Apply computer software in solving tasks
 | * Operating system
* Word processing
* Spread sheets
* Data base
 | * Oral questioning
* Observation
* Project
 |
| 1. Apply internet and email in communication at workplace
 | * Computer networks
* Uses of internet
* Electronic mail (e-mail) concept
 | * Oral questioning
* Observation
* Oral presentation
* Written report
 |

**Suggested Methods of Instructions**

* Instructor led facilitation of theory
* Demonstration by trainer
* Practical assignment
* Viewing of related videos
* Project
* Group discussions

**Recommended Resources**

* Desktop computers
* Laptop computers
* Other digital devices
* Printers
* Storage devices
* Internet access
* Computer software

# ENTREPRENEURIAL SKILLS

**UNIT CODE:** MT/CU/AB/BC/04/4/A

**Relationship to occupational standards**

This unit addresses the Unit of Competency: Demonstrate Entrepreneurial Skills

**Duration of unit:** 60 hours

**Unit description**

This unit covers the competencies required for creating and maintaining small scale business, establishing small business customer base, managing and growing a micro/small-scale business.

**Summary of Learning Outcomes**

1. Create and maintain small scale business
2. Establish small scale business customer base
3. Manage small scale business
4. Grow/expand small scale business

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

|  |  |  |
| --- | --- | --- |
| **Learning Outcome** | **Content** | **Suggested Assessment Methods** |
| 1. Create and maintain small scale business
 | * Starting a small business
* Legal regulatory requirements in starting a small business
* SWOT/ PESTEL analysis
* Conducting market/industry survey
* Generation and evaluation of business ideas
* Matching competencies with business opportunities
* Forms of business ownership
* Location of a small business
* Legal and regulatory requirement
* Resources required to start a small business
* Common terminologies in entrepreneurship
* Entrepreneurship in national development
* Self-employment
* Formal and informal employment
* Entrepreneurial culture
* Myths associated with entrepreneurship
* Types, characteristics, qualities & role of entrepreneurs
* History, development and importance of entrepreneurship
* Theories of entrepreneurship
* Quality assurance for small businesses
* Policies and procedures on occupational safety and health and environmental concerns
 | * Individual/group assignments
* projects
* Written
* Oral
 |
| 1. Establish small scale business customer base
 | * Good staff/workers and customer relations
* Marketing strategy
* Identifying and maintain new customers and markets
* Product/ service promotions
* Products / services diversification
* SWOT / PESTEL analysis
* Conducting a business survey
* Generating Business ideas
* Business opportunities
 | * Individual/group assignments
* projects
* Written
* Oral
 |
| 1. Manage small scale business
 | * Organization of a small business
* Small business’ business plan
* Marketing for small businesses
* Managing finances for small business
* Production/ operation process for goods/services
* Small business records management
* Book keeping and auditing for small businesses
* Business support services
* Small business resources mobilization and utilization
* Basic business social responsibility
* Management of small business
* Word processing concepts in small business management
* Computer application software
* Monitoring and controlling business operations
 | * Oral
* Individual/group assignments
* projects
* Written
 |
| 1. Grow/expand small scale business
 | * Methods of growing small business
* Resources for growing small business
* Small business growth plan
* Computer software in business development
* ICT and business growth
 | * Individual/group assignments
* projects
* Written
 |

**Suggested Methods of Instructions**

* Instructor led facilitation of theory
* Demonstration by trainer
* Practice by trainee
* Role play
* Case study

**Recommended Resources**

* Case studies for small businesses
* Business plan templates
* Lap top/ desk top computer
* Internet
* Telephone
* Writing materials

# EMPLOYABILITY SKILLS

**UNIT CODE:** MT/CU/AB/BC/05/4/A

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Demonstrate Employability Skills

**Duration of Unit:** 30 hours

**Unit Description**

This unit covers competencies required to demonstrate employability skills. It involves conducting self-management, demonstrating critical safe work habits, demonstrating workplace learning and workplace ethics.

**Summary of Learning Outcomes**

1. Conduct self-management
2. Demonstrate critical safe work habits
3. Demonstrate workplace learning
4. Demonstrate workplace ethics

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

|  |  |  |
| --- | --- | --- |
| **Learning Outcome** | **Content** | **Suggested Assessment Methods** |
| 1. Conduct self-management
 | * Self-awareness
* Formulating personal vision, mission and goals
* Strategies for overcoming life challenges
* Emotional intelligence
* Assertiveness
* Expressing personal thoughts, feelings and beliefs
* Developing and maintaining high self-esteem
* Developing and maintaining positive self-image
* Articulating ideas and aspirations
* Accountability and responsibility
* Good work habits
* Self-awareness
* Self-development
* Financial literacy
* Healthy lifestyle practices
 | * Written tests
* Oral questioning
* Portfolio of evidence
* Third party report
 |
| 1. Demonstrate critical safe work habits
 | * Stress and stress management
* Punctuality and time consciousness
* Interpersonal communication
* Sharing information
* Leisure
* Integratingpersonal objectives into organizational objectives
* Resources utilization
* Setting work priorities
* HIV and AIDS
* Drug and substance abuse
* Handling emerging issues
 | * Written tests
* Oral questioning
* Portfolio of evidence
* Third party report
 |
| 1. Demonstrate workplace learning
 | * Personal training needs identification and assessment
* Managing own learning
* Contributing to the learning community at the workplace
* Cultural aspects of work
* Variety of learning context
* Application of learning
* Safe use of technology
* Identifying opportunities
* Workplace innovation
* Performance improvement
* Handling emerging issues
* Future trends and concerns in learning
 | * Written tests
* Oral questioning
* Portfolio of evidence
* Third party report
 |
| 1. Demonstrate workplace ethics
 | * Meaning of ethics
* Ethical perspectives
* Principles of ethics
* Values and beliefs
* Ethical standards
* Organization code of ethics
* Common ethical dilemmas
* Organization culture
* Corruption, bribery and conflict of interest
* Privacy and data protection
* Diversity, harassment and mutual respect
* Financial responsibility/accountability
* Etiquette
* Personal and professional integrity
* Commitment to jurisdictional laws
* Emerging issues in ethics
 | * Written tests
* Oral questioning
* Portfolio of evidence
* Third party report
 |

**Suggested Methods of Instructions**

* Simulation/Role play
* Group Discussion
* Presentations
* Q&A
* Case studies
* Assignments

**Recommended Resources**

* Computers
* Stationery
* Charts
* Video clips
* Audio tapes
* Radio sets
* TV sets
* LCD projectors

# ENVIRONMENTAL LITERACY

**UNIT CODE:** MT/CU/AB/BC/06/4/A

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Demonstrate Environmental Literacy

**Duration of Unit:** 20hours

**Unit Description**

This unit specifies the competencies required to demonstrate environmental literacy. It involves controlling environmental hazard, controlling environmental pollution, demonstrating sustainable resource use and evaluating current practices in relation to resource usage.

**Summary of Learning Outcomes**

1. Control environmental hazard
2. Control environmental pollution
3. Demonstrate sustainable use of resources
4. Evaluate current practices in relation to resource usage

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

|  |  |  |
| --- | --- | --- |
| **Learning Outcome** | **Content** | **Suggested Assessment Methods** |
| 1. Control environmental hazard
 | * Purposes and content of Environmental Management and Coordination Act 1999
* Purposes and content of Solid Waste Act
* Storage methods for environmentally hazardous materials
* Disposal methods of hazardous wastes
* Types and uses of PPE in line with environmental regulations
* Occupational Safety and Health Standards (OSHS)
 | * Written tests
* Oral questions
* Observation of work procedures
 |
| 1. Control environmental Pollution
 | * Types of pollution
* Environmental pollution control measures
* Types of solid wastes
* Procedures for solid waste management
* Different types of noise pollution
* Methods for minimizing noise pollution
 | * Written tests
* Oral questions
* Observation of work procedures
* Role play
 |
| 1. Demonstrate sustainable resource use
 | * Types of resources
* Techniques in measuring current usage of resources
* Calculating current usage of resources
* Methods for minimizing wastage
* Waste management procedures
* Principles of 3Rs (Reduce, Reuse, Recycle)
* Methods for economizing or reducing resource consumption
 | * Written tests
* Oral questions
* Observation of work procedures
 |
| 1. Evaluate current practices in relation to resource usage
 | * Collection of information on environmental and resource efficiency systems and procedures,
* Measurement and recording of current resource usage
* Analysis and recording of current purchasing strategies.
* Analysis of current work processes to access information and data
* Identification of areas for improvement
 | * Written tests
* Oral questions
* Observation of work procedures
 |
| 1. Identify Environmental legislations/conventions for environmental concerns
 | * Environmental issues/concerns
* Environmental legislations /conventions and local ordinances
* Industrial standard /environmental practices
* International Environmental Protocols (Montreal, Kyoto)
* Features of an environmental strategy
 | * Written tests
* Oral questions
* Observation of work procedures
 |

**Suggested Methods of Instructions**

* Instructor led facilitation of theory
* Practical demonstration of tasks by trainer
* Practice by trainees/ role play
* Discussion
* Observations and comments and corrections by trainers

**Recommended Resources**

* Computers
* Stationery
* Charts
* Video clips
* Audio tapes
* Radio sets
* TV sets
* LCD projectors
* Standard operating and/or other workplace procedures manuals
* Specific job procedures manuals
* Machine/equipment manufacturer’s specifications and instructions
* Personal Protective Equipment (PPE)

# OCCUPATIONAL SAFETY AND HEALTH PRACTICES

**UNIT CODE:** MT/CU/AB/BC/07/4/A

**Relationship to Occupational Standards**

This unit addresses the unit of competency: Demonstrate Occupational Safety and Health Practices

**Duration of Unit:** 20 hours

**Unit Description**

This unit specifies the competencies required to practice safety and health and comply with OSH requirements relevant to work. It involves adhering to workplace procedures for hazards and risk prevention and participating in arrangements for workplace safety and health maintenance.

**Summary of Learning Outcomes**

1. Adhere to workplace procedures for hazards and risk prevention
2. Participate in arrangements for workplace safety and health maintenance

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

|  |  |  |
| --- | --- | --- |
| **Learning Outcome** | **Content** | **Suggested Assessment****Methods** |
| 1. Adhere to workplace procedures for hazards and risk prevention
 | * Arrangement of work area and items in accordance with Company housekeeping procedures
* Adherence to work standards and procedures
* Application of preventive and control measures, including use of safety gears/PPE
* Study and apply standards and procedures for incidents and emergencies.
 | * Oral questions
* Written tests
* Portfolio of evidence
* Third party report
 |
| 1. Participate in arrangements for workplace safety and health maintenance
 | * Participating in orientations on OSH requirements/regulations of tasks
* Providing feedback on health, safety, and security concerns to appropriate personnel as required in a sufficiently detailed manner
* Practice workplace procedures for reporting hazards, incidents, injuries and sickness
* OSH requirements/ regulations and workplace safety and hazard control procedures are reviewed, and compliance reported to appropriate personnel
* Identification of needed OSH-related trainings are proposed to appropriate personnel
 | * Oral questions
* Written tests
* Portfolio of evidence
* Third party report
 |

**Suggested Methods of Instructions**

* Assigments
* Discussion
* Q&A
* Role play
* Viewing of related videos

**Recommended Resources**

* Computers
* Stationery
* Charts
* Video clips
* Audio tapes
* Radio sets
* TV sets
* LCD projectors
* Standard operating and/or other workplace procedures manuals
* Specific job procedures manuals
* Machine/equipment manufacturer’s specifications and instructions
* Personal Protective Equipment (PPE) e.g.
* Mask
* Face mask/shield
* Safety bootsn
* Safety harness
* 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

# CORE UNITS OF LEARNING

# PRE-SLAUGHTER OPERATIONS

**UNIT CODE:** MT/CU/AB/CR/01/4/A

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Perform pre- slaughter care

**Duration of Unit:** 60 hours

**Unit Description**

This unit specifies the competencies required to perform pre-slaughter care. It involves transporting meat animals, conducting ante-mortem inspection, grading meat animals and record keeping and documentation.

**Summary of Learning Outcomes**

1. Transport meat animals
2. Conduct ante-mortem inspection
3. Grade meat animals
4. Record keeping and documentation

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

|  |  |  |
| --- | --- | --- |
| **Learning Outcome** | **Content** | **Suggested Assessment Methods** |
| 1. Transport meat animals
 | * Animal transportation methods
* Tools and equipment in animal transportation
* Legal requirements for animal transportation
* Animal behaviour
* Animal handling
* Occupational health and safety relating to animal transportation
* Effect of pre-slaughter animal handling on meat and carcass quality
 | * Observation
* Oral questioning
* Written tests
 |
| 1. Conduct ante-mortem inspection
 | * Definition of terminologies
* Animal anatomy and physiology
* Procedures of ante-mortem inspection
* Animal health assessment
* Management of various animal categories (dead, sick, injured)
* Types and use of tools and equipment
 | * + Observation
	+ Oral questioning
	+ Written tests
 |
| 1. Grade meat animals
 | * Definition of terminologies
* Factors to consider in live animal grading
* Methods of live animal grading
* Categories of body condition score
 | * Observation
* Oral questioning
* Written tests
 |
| 1. Record keeping and documentation
 | * Types of records and documents
* Methods of record keeping
* Document management
 | * Observation
* Oral questioning
* Written tests
 |

**Suggested Methods of Instruction**

* Demonstration by trainer
* Practice by the trainee
* Field trips
* Discussions
* Direct instruction

**Recommended Resources**

**Tools and equipment**

* Loading ramp
* Halters
* Prodders
* Canvas whip
* Ropes
* Crates
* Cages
* Feed troughs
* Water troughs
* Weighing scales
* Weighing band

**Materials and supplies**

* Stationery
* Detergents
* Disinfectants
* Lubricants
* Portable water
* Sanitizers
* Tissues
* Disposable towels
* Files
* Stamps
* File cabinets
* Ink pad

**Personal protective equipment (PPEs)**

* Gumboots
* White dust coat
* Helmets / white cap
* Dust masks
* Disposable gloves
* Safety goggles
* First aid kit

**Facilities**

Offices, crushes, holding pens, lairages, food stores, feed lots, hand wash basins, soak pits, lagoons, toilet and bathrooms, condemnation pits, incinerators, foot bath, footwear washing facilities, dressing rooms, water reservoir, and canteen.

# MEAT ANIMAL SLAUGHTER OPERATIONS

**UNIT CODE:** MT/CU/AB/CR/02/4/A

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Slaughter meat animals

**Duration of Unit:** 80 hours

**Unit Description**

This unit specifies the competencies required to slaughter the meat animal. It involves stunning the meat animals, bleeding the meat animal, flaying the meat animal and eviscerating the animal meat. It also includes cleaning the meat animal carcass and offals.

**Summary of Learning Outcomes**

1. Stun the meat animals
2. Bleed the meat animal
3. Flay the meat animal
4. Eviscerate the meat animal
5. Clean the meat animal carcass and offals

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

|  |  |  |
| --- | --- | --- |
| **Learning Outcome** | **Content** | **Suggested Assessment Methods** |
| 1. Stun the meat animals
 | * Definition of terminologies
* Objectives of stunning animals
* Methods of stunning based on species
* Maintenance and handling of stunning equipment
* Occupational safety and precautions
* Legislation relating to stunning
 | * Written tests
* Observation
* Oral questioning
 |
| 1. Bleed the meat animal
 | * Objectives of bleeding
* Tools used in bleeding
* Bleeding procedures for various meat animal species
* Effects of bleeding on meat carcass quality
* Legislation relating to bleeding
 | * Written tests
* Observation
* Oral questioning
 |
| 1. Flay / de-feather/ de-hair the meat animal
 | * Objectives of flaying/ de-feathering/ de-hairing
* Tools used in flaying/ de-feathering/ de-hairing
* Methods of flaying/ de-feathering/ de-hairing
* Defects associated with flaying / de-feathering/ de-hairing
* Legislation relating to flaying / de-feathering/ de-hairing
 | * Written tests
* Observation
* Oral questioning
 |
| 1. Eviscerate the meat

Animal | * Objectives of evisceration
* Evisceration methods
* Tools used in evisceration
* Contamination in evisceration
 | * Written tests
* Observation
* Oral questioning
 |
| 1. Clean the meat animal carcass and offals
 | * Objectives of cleaning
* Splitting of carcass based on species Hygienic protocols in cleaning
* Handling of stomachs and intestines based on species
 | * Written tests
* Observation
* Oral questioning
 |

**Suggested Methods of Instruction**

* Demonstration
* Practice by the trainee
* Field trips
* Discussions
* Direct instruction

**Recommended Resources**

**Tools and equipment**

* Scabbard
* Flaying knives
* Scoring knives
* Sharpening steel
* Hooks
* Rails
* Hook and rollers
* Craddles
* Chain block
* Gambrels
* Spreaders
* Bleeding funnels
* Wheelbarrows
* Axes buckets
* Brooms
* Horse pipes
* Sieging flames

**Materials and supplies**

* Stationary
* Detergents
* Disinfectants
* Lubricants
* Portable water
* Sanitizers
* Tissues
* Disposable towels
* Files, stamps
* File cabinets
* Ink pad
* Staples
* Staplers
* Rulers

**Personal protective equipment (PPEs)**

* White gumboots
* White plastic aprons
* White dust coat
* White caps
* White helmets
* Dust masks
* Heavy cold room clothing
* Steel chain gloves
* Disposable gloves
* Safety goggles
* First aid kit

**Facilities**

Offices, hand wash basins, soak pits, lagoons, toilet and bathrooms, condemnation pits, incinerators, foot bath, footwear washing facilities, dressing rooms, water reservoir, canteen, processing rooms etc.

# EDIBLE ABATTOIR PRODUCTS MANAGEMENT

**UNIT CODE:** MT/CU/AB/CR/03/4/A

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Manage edible abattoir products

**Duration of Unit:** 70 hours

**Unit Description**

This unit specifies the competencies required to manage edible abattoir products. It involves managing certified meat animal carcass, meat animal plucks, meat animal stomachs and intestines and meat animal heads/ feet. It also includes record keeping and documentation.

**Summary of Learning Outcomes**

1. Manage certified meat animal carcass
2. Manage certified meat animal plucks
3. Manage certified meat animal stomachs and intestines
4. Manage certified meat animal heads/feet
5. Record keeping and documentation

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

|  |  |  |
| --- | --- | --- |
| **Learning Outcome** | **Content** | **Suggested Assessment Methods** |
| 1. Manage certified meat animal carcass
 | * Definition of terminologies
* Objectives of carcass portioning (based on species)
* Methods of carcass portioning
* Tools used in portioning
* Dispatch of animal meat
* Legislation in transportation of animal meat
 | * Written tests
* Observation
* Oral questioning
 |
| 1. Manage certified meat animal plucks
 | * Definition of terminologies
* Management of plucks based on species
* Dispatch of meat animal plucks based on species
 | * Written tests
* Observation
* Oral questioning
 |
| 1. Manage certified meat animal stomachs and intestines
 | * Definition of terminologies
* Management of stomachs and intestines for different species
* Dispatch of meat animal stomachs and intestines based on species
 | * Written tests
* Observation
* Oral questioning
 |
| 1. Manage certified meat / feet animal heads
 | * Management of heads/ fees for different species
* Dispatch of meat animal heads/ feet based on species
 | * Written tests
* Observation
* Oral questioning
 |
| 1. Record keeping and documentation
 | * Types of records and documents
* Methods of record keeping
* Document management
 | * Observation
* Oral questioning
* Written tests
 |

**Suggested Methods of Instruction**

* Demonstration by trainer
* Practice by the trainee
* Field trips
* Discussions
* Direct instruction

**Recommended Resources**

**Tools and equipment**

* Wheelbarrows
* Trimming knives
* Buckets
* Blood tanks
* Washbasins
* Weighing scale
* Meat containers

**Materials and supplies**

* Stationary
* Detergents
* Disinfectants
* Lubricants
* Portable water
* Sanitizers
* Tissues
* Disposable towels

**Personal protective equipment (PPEs)**

* White gumboots
* White plastic aprons
* White dust coat
* White caps
* White helmets
* Dust masks
* Heavy cold room clothing
* Steel chain gloves
* Disposable gloves
* Safety goggles
* First aid kit

**Facilities**

Hand washing basins, soak pits, lagoons, toilet and bathrooms, condemnation pits, incinerators, foot bath, footwear washing facilities, dressing rooms, water reservoir, canteen

# INEDIBLE ABATTOIR PRODUCTS MANAGEMENT

**UNIT CODE:** MT/CU/AB/CR/04/4/A

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: Manage abattoir inedible products

**Duration of Unit:** 70 hours

**Unit Description**

This unit specifies the competencies required to manage inedible abattoir products. It involves managing meat animal blood, handling meat animal ingesta, utilizing meat animal bones/ horns/hooves, managing meat animal fats and preserving hides and skins.

**Summary of Learning Outcomes**

1. Manage meat animal blood
2. Handle meat animal ingesta
3. Manage meat animal bones, horns and hooves
4. Manage meat animal fats
5. Preserve Hides and Skins

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

|  |  |  |
| --- | --- | --- |
| **Learning Outcome** | **Content** | **Suggested Assessment Methods** |
| 1. Manage meat animal blood
 | * Legislation in management of meat animal blood
* Procedures of blood collection
* Utilization of meat animal blood
 | * Written tests
* Observation
* Oral questioning
 |
| 1. Handle meat animal ingesta
 | * Collection of ingesta from the abattoir
* Management of the ingesta
* Utilization of ingesta
* Legislation relating to ingesta management
 | * Written tests
* Observation
* Oral questioning
 |
| 1. Manage meat animal, bones, horns and hooves
 | * Definition of terminologies
* Preservation of bones, horns and hooves
* Utilization of bones, horns and hooves
 | * Written tests
* Observation
* Oral questioning
 |
| 1. Manage meat animal fats
 | * Definition of terminologies
* Preservation of fats
* Utilization of fats
* Disposal of fat remnants
 | * Written tests
* Observation
* Oral questioning
 |
| 1. Preserve Hides and Skins
 | * Definition of terminologies
* Factors affecting the quality of hides and skins
* Collection, sorting and transfer of hides and skins to the store (Banda)
* Preservation methods for hides and skins
* Storage of cured hides and skins
* Dispatch of the preserved hides and skins
 | * Written tests
* Observation
* Oral questioning
 |
| 1. Record keeping and documentatio
 | * Objectives of record keeping
* Types of records and documents
* Methods of record keeping
* Document management
 | * Observation
* Oral questioning
* Written tests
 |

**Suggested Methods of Instruction**

* Demonstration by trainer
* Practice by the trainee
* Field trips
* Discussions
* Direct instruction

**Recommended resources**

**Tools and equipment**

* Wheelbarrows
* Spades
* Forklifts
* Trimming knives
* Buckets
* Blood tanks
* Ppes
* Weighing balance
* Chutes
* Brushes

**Materials and supplies**

* Stationery
* Detergents
* Disinfectants
* Lubricants
* Portable water
* Sanitizers
* Tissues
* Disposable towels

**Personal protective equipment (PPEs)**

* Safety boots
* Plastic aprons
* Dust coat
* Safety helmets
* Dust masks
* Disposable gloves
* Safety goggles
* First aid kit

**Facilities**

Hand washing basins, soak pits, lagoons, toilet and bathrooms, condemnation pits, incinerators, foot bath, footwear washing facilities, dressing rooms, water reservoir, canteen

# FOOD SAFETY SYSTEMS MANAGEMENT

**UNIT CODE:** MT/CU/AB/CR/05/4/A

**Relationship to Occupational Standards**

This unit addresses the Unit of Competency: manage food safety systems.

**Duration of Unit:** 60 hours

**Unit Description**

This unit specifies the competencies required to manage food safety systems. It involves managing personnel hygiene, facility hygiene, equipment hygiene and managing environmental hygiene.

**Summary of Learning Outcomes**

1. Manage personnel hygiene
2. Manage facility hygiene
3. Manage equipment hygiene
4. Manage environmental hygiene

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

|  |  |  |
| --- | --- | --- |
| **Learning Outcome** | **Content** | **Suggested Assessment Methods** |
| 1. Manage personnel hygiene
 | * Definition of terminologies
* Objectives of personnel hygiene
* Personal hygiene practices
* Legal requirements in personnel hygiene
 | * Observation
* Oral questioning
* Written tests
 |
| 1. Manage facility hygiene
 | * Objectives of facility hygiene
* Water quality
* Types of detergents and disinfectants
* Cleaning tools and equipment
* Cleaning and washing procedure
 | * Observation
* Oral questioning
* Written tests
 |
| 1. Manage equipment hygiene
 | * Equipment cleaning and washing procedures
* Equipment disinfection and sterilization
 | * Observation
* Oral questioning
* Written tests
 |
| 1. Manage environmental hygiene
 | * Objectives of environmental management
* Solid and liquid wastes management
* Drainage system management
* Environmental impact assessment
* Effects of climate change on environmental hygiene
* Vermin and pests control
* Legislation relating to environmental management
 | * Observation
* Oral questioning
* Written tests
 |

**Suggested Methods of Instruction**

* Demonstration by trainer
* Practice by the trainee
* Field trips
* Discussions
* Viewing of related videos
* Direct instruction

**Recommended Resources**

**Tools and equipment**

* Wheel barrows
* Sharpening
* Hot water knife sterilizer
* Brooms
* Squeezers
* Hand brushes
* Buckets
* Filters
* Grease traps
* Horse pipe
* Sterilizers

**Materials and supplies**

* Stationary
* Detergents
* Disinfectants
* Lubricants
* Portable water
* Sanitizers
* Tissues
* Disposable towels

**Personal protective equipment (PPEs)**

* White gumboots
* White plastic aprons
* White dust coat
* White caps
* White helmets
* Dust masks
* Disposable gloves
* Safety goggles
* First aid kit

**Facilities**

Offices, hand wash basins, soak pits, blood tanks, lagoons, toilet and bathrooms, condemnation pits, incinerators, foot bath, footwear washing facilities, dressing rooms, water reservoir, canteen, manure shed, hides and skins store, trippery.