

**REPUBLIC OF KENYA**

**NATIONAL OCCUPATIONAL STANDARDS**

**FOR**

**FOOTWEAR PRODUCER**

**LEVEL 5**



TVET CDACC

P.O. BOX 15745-00100

NAIROBI

First published 2019

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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 to the formulation of the Policy Framework for Reforming Education and Training (Sessional Paper No. 4 of 2016). A key feature of this policy is the radical change in the design and delivery of the TVET training. This policy document requires that training in TVET be competency based, curriculum development be industry led, certification be based on demonstration of competence and mode of delivery allows for multiple entry and exit in TVET programmes.

These reforms demand that Industry takes a leading role in curriculum development to ensure the curriculum addresses its competence needs. It is against this background that these Occupational Standards were developed for developing a competency based curriculum for Footwear Production Level 5. These Occupational Standards will also be the bases for assessment of an individual for competence certification.

It is my conviction that these Occupational Standards will play a great role towards development of competent human resource for the Leather 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 and the Sessional Paper No. 4 of 2016 on Reforming Education and Training in Kenya, emphasized the need to reform curriculum development, assessment and certification. This called for 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.

The TVET Curriculum Development, Assessment and Certification Council (TVET CDACC), in conjunction with Leather Sector Skills Advisory Committee (SSAC) have developed these Occupational Standards for a Footwear producer. These occupational standards will be the bases for development of competency based curriculum for Footwear Production Level 5. These Standards will also be the bases for assessment of an individual for competence certification.

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

I am grateful to the Council Members, Council Secretariat, Leather SSAC, expert workers and all those who participated in the development of these occupational standards.

**CHAIRPERSON,**

**TVET CDACC**

# ACKNOWLEDGMENT

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

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

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

**CHAIRPERSON**

**LEATHER SECTOR SKILLS ADVISORY COMMITTEE**

# ABBREVIATION AND ACRONYMS

3Rs : Reduce, Reuse and Recycle

BC : Basic Competency

CC : Common Competency

CDACC : Curriculum Development, Assessment and Certification Council

CR : Core Competency

EMS : Environmental Management System

FW : Foot Wear

HSE : Health, Safety and Environment

ICT : Information Communication Technology

ISO : International Standard Organization

OS : Occupational Standards

OSHA : Occupation Safety and Health Act

OSHS : Occupation Safety and Health Standards

PPE : Personal Protective Equipment

SOP : Standard Operating Procedures

SSAC : Sector Skills Advisory Committee

TEX : Textile

TVET : Technical and Vocational Education and Training

# KEY TO UNIT CODE

**TEX/OS/FW /BC/01/5/A**

Industry or sector

Occupational Standards

Occupational area

Type of competency

Competency number

Competency level

Control version

# 

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# **OVERVIE**W

Footwear Producer level 5 outlines competencies that enables a person to work in a footwear production industry efficiently. It entails cutting footwear materials, preparing footwear components, performing footwear closing operations, carrying out footwear construction, carrying out footwear finishing operations and carrying out footwear shoe room operations.

This qualification consists of the following basic, common and core competencies:

**BASIC COMPETENCIES**

|  |  |
| --- | --- |
| **Unit Code** | **Unit Title** |
| TEX/OS/FW/BC/01/5/A | Demonstrate communication skills |
| TEX/OS/FW/BC/02/5/A | Demonstrate numeracy skills |
| TEX/OS/FW/BC/03/5/A | Demonstrate digital literacy |
| TEX/OS/FW/BC/04/5/A | Demonstrate entrepreneurial skills |
| TEX/OS/FW/BC/05/5/A | Demonstrate employability skills |
| TEX/OS/FW/BC/06/5/A | Demonstrate environmental literacy |
| TEX/OS/FW/BC/07/5/A | Demonstrate occupational safety and health practices |

**COMMON COMPETENCIES**

|  |  |
| --- | --- |
| **Unit Code** | **Unit Title** |
| TEX/OS/FW/CC/01/5/A | Apply footwear production practices and principles |
| TEX/OS/FW/CC/02/5/A | Carry out measurements and calculations |
| TEX/OS/FW/CC/03/5/A | Use and care for hand and power tools |
| TEX/OS/FW/CC/04/5/A | Set up and operate machine/s |
| TEX/OS/FW/CC/03/5/A | Perform estimates and costing |

**CORE** **COMPETENCIES**

|  |  |
| --- | --- |
| **Unit Code** | **Unit Title** |
| TEX/OS/FW/CR/01/5/A | Carry out footwear design and pattern cutting |
| TEX/OS/FW/CR/02/5/A | Cut footwear material |
| TEX/OS/FW/CR/03/5/A | Prepare footwear components |
| TEX/OS/FW/CR/04/5/A | Perform footwear closing operations |
| TEX/OS/FW/CR/05/5/A | Carry out footwear construction |
| TEX/OS/FW/CR/06/5/A | Carry out footwear finishing operations |
| TEX/OS/FW/CR/07/5/A | Carry out footwear shoe room operations |

# BASIC UNITS OF COMPETENCY

## DEMONSTRATE COMMUNICATION SKILLS

**UNIT CODE:** TEX/OS/FW/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:** TEX/OS/FW/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. |
| 1. 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. |
| 1. 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 |
| 1. 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. |
| 1. 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. |
| 1. 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 |
| 1. 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:** TEX/OS/FW/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 |
| 1. 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 :** TEX/OS/FW/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**  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. 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.

|  |  |
| --- | --- |
| **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:** TEX/OS/FW/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:** TEX/OS/FW/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:** TEX/OS/FW/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 UNITS OF COMPETENCY

## APPLY FOOTWEAR PRODUCTION PRACTICES AND PRINCIPLES

**UNIT CODE:** TEX/OS/FW/CC/01/5/A

**UNIT DESCRIPTION**

This unit specifies the competencies required to apply footwear production practices and principles. It involves applying knowledge of footwear products and systems in the workplace and demonstrating productive work practices.

**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. Apply knowledge of footwear products and systems in the workplace | * 1. ***Parts and styles of footwear*** are identified, recognized and followed during production.   2. ***Materials*** are selected and used in accordance with work order and characteristics of the materials   3. ***Tools and machines*** are identified and selected/specified based on work and safety requirements and manufacturer’s recommendations   4. Quality of work is consistently maintained at optimum level |
| 1. Demonstrate productive work practices | * 1. Work load is prioritized to meet job orders and delivery dates   2. Wastage of production material and time is minimized through consistent practice of quality procedures   3. Responsibilities and duties are performed in a positive manner to promote cooperation within the workplace and meet production target deliveries   4. Problems, conflicts or contingencies are recognized and addressed and/or referred to ***appropriate person(s)*** |

**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. Parts and styles of Footwear may include but are not limited to | * Parts of footwear are: * Upper components * Lining and interlining components * Bottom components * Styles of footwear: * Derby * Oxford * Monk * Court shoe * Trainer * Boot * Moccasin * Slip-on |
| 1. Materials may include but are not limited to | * Leather * Synthetic * Fabric * Reinforcement materials * Grindery |
| 1. Tools and machines may include but are not limited to | * Upper making tools * Lasting tools * Stitching machines * Lasting machines |
| 1. Incident scene may include but are not limited to | * Indoor or outdoor * In a rural or urban environment |
| 1. Appropriate person(s) may include but are not limited to | * Team leader/Supervisor * Production manager * Shop steward |

**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 skills – communicating and interacting with co-workers
* Operation and setting of common footwear production materials, tools and equipment
* Literacy skills – reading and interpreting labels, description, work ticket and relevant workplace documents
* Numeracy skills – estimating time, arithmetic operations, measurement skills

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Footwear production terminology
* Footwear production materials
* Key processes or operations in footwear production
* Types and design of footwear
* Footwear quality standards
* Occupational health and safety
* Basic shop mathematics

**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 | * 1. Demonstrated knowledge of footwear productions,   2. terminology, materials, tools and equipment   3. Demonstrated knowledge of parts and styles of   4. footwear and current design trends   5. Demonstrated ability to select/specify appropriate tool, equipment and materials for one or more production operations   6. Demonstrated ability to contribute to a productive work environment and meet production target   7. Demonstrated ability to identify and address problems at the work place |
| 1. Resource Implications | The following resources should be provided:   * 1. Workplace environment   2. Workplace documentation, e.g., company policies,   Procedures |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Written/Oral questioning   2. Observation of work activities   3. Third-party report   4. Portfolio assessment |
| 1. Context of Assessment | Competency may be assessed on the job, off the job or a combination of these. Off the job assessment must be undertaken in a closely simulated workplace environment or during industrial attachment. |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

## CARRY OUT FOOT MEASUREMENTS AND CALCULATIONS

**UNIT CODE:** TEX/OS/FW/CC/02/5/A

**UNIT DESCRIPTION**

This unit specifies the competencies required to carry out measurements and calculations. It involves obtaining measurements, performing simple calculation and estimating approximate quantities.

**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. Obtain foot measurements | * 1. Measurements are obtained according to job instructions using ***measuring devices***   2. ***System of measurement*** to be used is identified |
| 1. Perform simple   calculation | * 1. ***Simple calculations*** carried out based on the requirements of the situation   2. Correctness of calculations verified based on production requirements |
| 1. Estimate approximate quantities | * 1. Measurements or quantities estimated on job requirements   2. Measurements identified/recorded without error   3. Quantities of materials suitable for work undertaken are calculated and recorded according to job instructions |

**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. Measuring device may include but are not limited to | * Tape measure * Ruler * Meter stick * Thickness Gauge * Divider |
| 1. System of measurement may include but are not limited to | * English system * Metric system |
| 1. Simple Calculations (Four Fundamental Operations) may include but are not limited to | * Addition * Subtraction * Multiplication * Division |

**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:

* Reading and interpreting work ticket
* Measuring and calculating manually
* Recording measurement
* Operating electronic calculating devices
* Communicating effectively

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Drawings and specifications
* Materials relevant to the construction processes
* Basic operation in measurement and calculations

**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 | * 1. Demonstrated effective use of measuring devices   2. Took and recorded accurate measurements   3. Performed simple calculations according to specifications   4. Estimated required quantities of materials |
| 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 task |
| 1. Methods of Assessment | Competency may be assessed through:  3.1 Portfolio Assessment  3.2 Interview  3.3 Case Study/Situation  3.4 Observation/Demonstration and oral questioning |
| 1. Context of Assessment | Competency may be assessed on the job, off the job or a combination of these. Off the job assessment must be undertaken in a closely simulated workplace environment or during industrial attachment. |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

## PERFORM ESTIMATES AND COSTING

**UNIT CODE:** TEX/OS/FW/CC/03/5/A

**UNIT DESCRIPTION**

This unit covers the competencies required to perform print estimates and costing. It entails Performing cost accounting, working out production requirement, performing estimation, quotation and cost backing

**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. Perform Cost Accounting | * 1. Cost element are calculated according to job specification   2. Material costing is performedaccording to job specification   3. Costing labour is calculatedaccording to job specification   4. Overheads are calculated ***according*** to job specification   5. Machine running hours are calculated according to production requirement. | |
| 1. Working out production requirement | * 1. Printing substitutes are ordered according to job requirement   2. Ink is chosen according to job specification   3. Pre-press is chosen according to job specification   4. Press production is carried out according to job requirement   5. Post press production is carried out according to job specification   6. Finishing operation is chosen according to job specification | |
| 1. Perform estimating and quotation | * 1. Functions are assigned according to job specification   2. Estimating and quoting are calculated according to job description and specification   3. Cost per unit is determined according to job specification | |
| 1. Perform cost back | | * 1. Controls are performed according to the actual cost   2. Data collection is conducted according to job requirements   3. Variance is calculated according to job cost summary |

**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. Cost elementmay include but is not limited to***:*** | * direct and indirect expenditure * material * wages * expenses * overheads divisions * costing methods (e.g. job, batch, unit, process, departmental, standard) |
| 1. Material costing may include but is not limited to: | * Purchasing * Requisition * Suppliers * Order * Material receipt * Storage * Control * Bin card * Replenishment * Request and issue of material * Valuing |
| 1. Costing labour may include but is not limited to***:*** | * Personnel recording * Gate time control * Wages calculation * Payroll * Wage and job process * Job cost card * Remuneration schemes |
| 1. Overhead may include but is not limited to***:*** | * Expense heading * Fixed and variable overhead * Depreciation * Revaluation * Apportion to department and production * Budget centre types * Cost centre * Cost rates |

**REQUIRED KNOWLEDGE**

***The individual needs to demonstrate knowledge of:***

* ICT
* Organization policy
* Costing techniques
* Pricing techniques
* Materials utilization
* Documentation knowledge
* Printing processes
* Human Resource Policy
* Methods of working
* Standard Operating Procedures
* Market rates
* Labour Laws and Regulations

**REQUIRED SKILLS**

***The individual needs to demonstrate skills in:***

* Calculation of Production Time
* Communication
* Team work
* Printing Operations
* Human Resource capability
* Calculation of Material Quantity
* Interpreting Work Orders
* Costing Techniques
* Numerical Techniques
* Pricing Techniques

**EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical Aspects of Competency. | * 1. Performed cost accounting   2. Worked out production requirement   3. Performed estimating and quotation   4. Performed cost back |
| 1. Resource Implications. | * 1. Computers   2. Application software   3. Printing materials price lists |
| 1. Methods of Assessment. | ***Competency may be assessed through:***   * 1. Practical   2. Written |
| 1. Context of Assessment. | 4.1 Competency may be assessed individually in an actual workplace or in work-simulated conditions within accredited institutions or during industrial attachment. |
| 1. Guidance information for assessment. | * 1. Holistic assessment with other units relevant to the industry subsector, workplace and job roles is recommended. |

# CORE UNITS OF COMPETENCY

## CARRY OUT FOOTWEAR DESIGN AND PATTERN CUTTING

**UNIT CODE:** TEX/OS/FW/CR/01/5/A

**UNIT DESCRIPTION**

This unit covers the competencies required to carry out footwear design and pattern cutting. It entails carrying out market survey, identifying design resources, developing footwear sketches/illustrations, designing and cut footwear patterns and grading foot wear patterns

**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. Carry out market survey | * 1. Target market is determined according to needs.   2. Research tools are identified and developed according to market needs   3. Market data is collected according to identified research tools.   4. Collected data is analysed and conclusions made according to findings. |
| * 1. Identify design resources | * 1. Required personnel is identified according to design requirements   2. ***Design media*** are identified according to design requirements. |
| * 1. Develop footwear sketches/illustrations | * 1. Design theme is identified according to research findings.   2. Sketching media are identified according to design theme.   3. Footwear sketches are developed according to design requirements.   4. Story board/ inspirational board are developed according to workplace procedures. |
| * 1. Design and cut footwear patterns | 4.1 ***Tools and materials*** are identified according to design requirements  4.2 Design last is masked according to masking method  4.3 Standard geometrical dimensions are marked according to standard last length (SLL) 4.4 Design is sketched on the last according to design requirements  4.5Sketch design is transferred from 3D tape pattern to 2D  4.6 Standard forme is developed according to design requirements  4.7 Design patterns are developed and cut according to standard forme. |
| * 1. Grade foot wear patterns | ***5.1 Grading method*** are identified according to resource available  5.2 Pattern grading is carried out according to different sizes and fittings. |

**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. Design media may include but are not limited to | * Sketching pencils * Sketch book * Markers * Brushes * Erasers * Water color papers |
| 1. Tools and materials may include but are not limited to | * Designing last * Masking tape * Shoe tape measure * Clicking knife * Pencil * Flexible tape * CAD |
| 1. Grading method may include but are not limited to | * Hand grading * Machine grading * CAD |

**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:

* Communicating and interacting skills
* Masking
* Cutting
* Drawing and sketching
* Operation of design tools, equipment
* Interpreting work ticket
* Designing

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Grading methods
* Designing tools
* Research methods
* CAD
* Interpretation of work ticket
* Computer literacy
* Design media
* Foot measurements
* Last
* Safe work practices
* Basic product knowledge
* Footwear terms
* Positive work values (Quality, cost and safety consciousness, attention to details, patience, perseverance, etc.).

**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. Carried out market survey 2. Identified design resources 3. Developed footwear sketches/illustrations 4. Designed and cut footwear patterns 5. Graded foot wear patterns |
| 1. Resource Implications | The following resources must be provided:   * 1. Workshop   2. Tools and equipment   3. Design media   4. Reference materials |
| 1. Methods of Assessment | Competency may be assessed through:   1. Interview 2. Observation 3. Projects 4. Written tests 5. Practical 6. Case studies 7. Third party reports |
| 1. Context of Assessment | Competency may be assessed on:   1. On the job 2. Off the job in a Simulated workplace setting |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry subsector, workplace and job roles is recommended. |

## CUT FOOTWEAR MATERIAL

**UNIT CODE:** TEX/OS/FW/CR/02/5/A

**UNIT DESCRIPTION**

This unit covers the competencies required to cut footwear material. It entails identifying footwear materials, tools and equipment, analysing footwear materials, cutting footwear material and preparing production report/work ticket/ job card.

**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 footwear materials, tools and equipment | * 1. ***Footwear material*** are identified according to design requirement and type of shoe   2. ***Cutting tools, equipment and machines*** are identified according to organization infrastructure and design requirements |
| 1. Analyse footwear materials | * 1. ***Footwear material testing equipment and tools*** are identified and used according to according to test to be done   2. Footwear material samples are prepared according to KEBS standards   3. ***Physical and visual test*** is carried out on footwear material according to KEBS standards   4. Analysis report is prepared and recommendations noted according to finding from analysis. |
| 1. Cut footwear material | * 1. Instructions given on the work ticket or job card are followed in line with the responsibilities of your job role.   2. Materials are inspected for ***defects*** according to production requirements   3. Correct tools, machine and equipment are used according to production requirement   4. Cutting operations are carried out according to principles of cutting   5. Report any damaged work to the supervisor/ quality controller |
| 1. Prepare production report/work ticket/ job card | * 1. Production template is developed according to organizational procedures.   2. Production template are filled according to work ticket. |

**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. Footwear material may include but are not limited to | * Natural material * Leather * Fabric * Artificial material * PVC * PU * Bottom component * Stiffeners and toe puff * Insole |
| 1. Cutting tools, equipment and machines may include but are not limited to | * Clicking knives * Clicking machines * Cutting board |
| 1. Footwear material testing equipment and tools may include but are not limited to | * Flexometer * Tensor meter strength * Tear tester * Stitch tester * Rub fastness * Abrasive tester |
| 1. Physical and visual test may include but are not limited to | * Tensile testing * Abrasive testing * Rub fastness testing * Observation |
| 1. Defects may include but are not limited to | * Gorge marks * Brand marks * Cuts * Tick marks * Scratches * Texture * Poor break |

**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:

* Communicating and interacting skills
* Cutting
* Operation of cutting tools, equipment and machines
* Interpreting work ticket
* Economical utilization of the materials

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Safe work practices
* Types and characteristics of the footwear materials
* Footwear terms
* Positive work values (Quality, cost and safety consciousness, attention to details, patience, perseverance, etc.).
* Formulae for calculating area
* Units of measurement and abbreviations
* Fundamental operations (addition, subtraction, division, multiplication)
* Cutting tools, equipment and machines
* CAD/ CAM
* Common defects
* Principles of cutting
* Interpretation of work ticket
* Computer literacy
* Basic product knowledge

**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 footwear materials, tools and equipment 2. Analysed footwear materials 3. Cut footwear material 4. Prepared production report/work ticket/ job card |
| 1. Resource Implications | The following resources must be provided:   * 1. Workshop   2. Cutting tools, machines and equipment   3. Footwear materials   4. Reference materials |
| 1. Methods of Assessment | Competency may be assessed through:   1. Interview 2. Observation 3. Written tests 4. Practical 5. Project 6. Third party reports |
| 1. Context of Assessment | Competency may be assessed on:   1. On the job 2. Off the job in a Simulated workplace setting 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry subsector, workplace and job roles is recommended. |

## PREPARE FOOTWEAR COMPONENTS

**UNIT CODE:** TEX/OS/FW/CR/03/5/A

**UNIT DESCRIPTION**

This unit covers the competencies required to prepare footwear components. It entails inspecting footwear components, carrying out component, position/stitch and decoration markings, performing skiving and splitting operations and carrying out top line and edge treatment

**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. Inspect footwear components | * 1. Footwear component color and shade is checked is according to job specifications.   2. Footwear components size/pairing is checked according to job specifications.   3. Footwear components substance is checked according to job specifications.   4. Footwear components ***defects*** are identified according to job requirements.   5. Footwear component quantities are checked as per work schedules/work ticket/ job card   6. Footwear component design is checked according to job specifications.   7. Footwear components are coded according to organizational procedures. |
| 1. Carry out component marking | * 1. Component ***marking methods*** are identified according to organization infrastructure   2. Tools and equipment are identified according to marking method   3. Components are marked out to job specifications. |
| 1. Carry out position/stitch marking | * 1. Component ***marking methods*** are identified according to organization infrastructure   2. Tools and equipment are identified according to marking method   3. Components are position/stitch marked out according to job specifications. |
| 1. Carry out decoration operations | * 1. ***Decoration method*** is identified according to shoe design   2. Tools and equipment are identified according to decoration method and level of production   3. Decoration operations are carried out according to job specifications |
| 1. Perform skiving operations | * 1. ***Types of skive*** is identified according to shoe design   2. Tools, machines and equipment for skiving are identified according to level of production   3. Components are marked according to type of skive   4. Skiving operation is carried out according to type of skive |
| 1. Perform splitting operations | * 1. Leather substance is checked according to job specification.   2. Splitting machine, tools and equipment are identified according to organization infrastructure.   3. Splitting operation is carried out according to organization infrastructure.   4. Component substance is confirmed according to job specifications. |
| 1. Carry out top line and edge treatment | * 1. ***Topline and edge treatment methods*** are identified according to job specifications.   2. Tools, machines and equipment are identified according to topline and edge treatment method   3. Topline and edge treatment is carried out according to job 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. Defects may include but are not limited to | * Gorge marks * Cuts * Vainness * Tick bites |
| 1. Marking methods may include but are not limited to | * Crayon marking * Notch marking * Color marking * Lining stamping |
| 1. Decoration method may include but are not limited to | * Perforations * Stitching * Gimping * Stamping |
| 1. Types of skive may include but are not limited to | * Folding * Underlay * Closed seam * Raw edge |
| 1. Topline and edge treatment methods may include but are not limited to | * Topline treatment methods * Folding * Binding * Bagging * Collar * Padding * Edge treatment methods * Raw edge * Burnishing * Staining * Folding * Binding |

**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:

* Splitting
* Skiving
* Folding
* Measuring
* Binding
* Staining
* Burnishing
* Creativity
* Communication

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Parts and functions of :
* Splitting machine
* Skiving machine
* Thickness gauge
* Folding machine
* Edge dying machine
* Safety regulations
* Machine manuals
* Component storage
* Waste disposal
* Types of skive
* Topline and edge treatment
* Different leather types and finishes
* Familiarity with the types of upper and lining components
* Positive work values (patience, cost, quality and safety consciousness, etc.)
* Types of footwear materials

**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. Inspected footwear components 2. Carried out component marking 3. Carried out position/stitch marking 4. Carried out decoration operations 5. Performed skiving operations 6. Performed splitting operations 7. Carried out top line and edge treatment |
| 1. Resource Implications | The following resources must be provided:   * 1. Stationery   2. Thickness gauge   3. Footwear components   4. Job card   5. Marking tools and equipment   6. Skiving machines, tools and equipment   7. Splitting machine, tools and equipment   8. PPE |
| 1. Methods of Assessment | Competency may be assessed through:   1. Interview 2. Observation 3. Written tests 4. Practical 5. Third party reports |
| 1. Context of Assessment | Competency may be assessed on:   1. On the job 2. Off the job 3. In a Simulated workplace setting 4. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry subsector, workplace and job roles is recommended. |

## PERFORM FOOTWEAR CLOSING OPERATIONS

**UNIT CODE:** TEX/OS/FW/CR/04/5/A

**UNIT DESCRIPTION**

This unit covers the competencies required to perform footwear-closing operations. It entails determining job requirement, operating footwear closing machines, performing footwear closing operations and checking and finishing shoe upper.

**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. Determine job requirement | * 1. Follow standard operating procedures (SOPs) according to organization setup   2. Comply with occupational health and safety requirements according to OSHA   3. Use appropriate ***personal protective equipment (PPE)*** in accordance with SOPs   4. Identify job requirements from specifications, drawings, job sheets or work instructions |
| 1. Operate footwear closing machines | * 1. Machine manuals are obtained and used according to organizational set up.   2. Machine and operator’s safety operations are observed according to manufacturer’s manual   3. ***Footwear closing machine*** is set up according to manufacturer’s manual.   4. Footwear closing machine is tested according to type of job.   5. Footwear closing machine is operated according to type of job.   6. Footwear closing machine is serviced/ maintained according to manufacturer’s manual. |
| 1. Perform footwear closing operations | * 1. Shoe components are obtained according to job specifications.   2. Fitting together shoe components is carried out according to job card/ work ticket.   3. Correct stitching thread/ adhesive/ Machine/ tools / equipment are identified according to job specifications   4. Shoe components are positioned according to identified construction process   5. Attach and assemble shoe components in correct sequence |
| 1. Check and finish shoe upper | * 1. Loose thread and excess allowance is trimmed according to job specifications   2. Shoe upper eyelet is reinforced where applicable according to job specifications.   3. Temporary lacing is carried out according to job specifications.   4. Fitting of toe puffs and stiffeners is carried out according to job specifications.   5. Quality of shoe upper is checked out according to job specifications.   6. Produced shoe uppers are documented according to organization 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. Personal protective equipment (PPE)may include but are not limited to | * Safety shoes * Dust mask * Aprons/ overall * Rubber gloves |
| 1. Footwear closing machine may include but are not limited to | * + Stitching machine     - * Flat bed       * Post bed       * Cylinder arm       * Bar tacking   + Seam rubbing down machine |
| 1. Safety Requirements may include but are not limited to | * Compliance with safety hazards and measures while working * Safety in machine setting and maintenance |
| 1. Tools may include but are not limited to | * Dressing tool * Shears/scissors/cutters * Leather substance gauge * Cleaning brush |
| 1. PPE may include but are not limited to | * Apron * Mask |

**REQUIRED SKILLS AND KNOWLEDGE**

**Required Skills**

***The individual needs to demonstrate skills in:***

* Stitching/ fitting shoe upper components
* Accuracy
* Neatness
* Use of PPE
* Machine operation and adjustment
* Application of adhesives
* Identification of stitches
* Trimming
* Adjusting and setting procedures
* Communicating and interacting skills
* Interpreting work ticket

**Required Knowledge**

***The individual needs to demonstrate knowledge of:***

* Safe work practices
* Machine’s parts and function and adjustment
* Tools and equipment
* Shoe upper materials
* Adhesives
* Types of seams
* Top line treatment
* Types of stitches
* Types of threads and needles
* Types of machines
* Quality standards
* Maintenance
* Positive work values (being organize, cost, quality and safety consciousness, patience, etc.)

**EVIDENCE GUIDE**

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

|  |  |
| --- | --- |
| 1. Critical Aspects of Competency. | * 1. Performed footwear closing operations   2. Checked and finished shoe upper   3. Complied with occupational health and safety requirements   4. Used appropriate personal protective equipment (PPE)   5. Stitched shoe uppers   6. Operated footwear closing machines   7. Attached and assembled shoe components in correct sequence   8. Reinforced shoe lacing holes |
| 1. Resource Implications. | * 1. Shoe components   2. Thread   3. Adhesives   4. Stitching machines   5. Eyelets   6. Eyeleting tools, machines and equipment   7. PPE   8. Stationery |
| 1. Methods of Assessment. | ***Competency may be assessed through:***   * 1. Practical   2. Observation   3. Questionnaire   4. Case studies   5. Written examinations   6. Oral presentation |
| 1. Context of Assessment. | Competency may be assessed individually in an actual workplace or in work-simulated conditions within accredited institutions. |
| 1. Guidance information for assessment. | Holistic assessment with other units relevant to the industry subsector, workplace and job roles is recommended. |

## CARRY OUT FOOTWEAR CONSTRUCTION

**UNIT CODE:** TEX/OS/FW/CR/05/5/A

**UNIT DESCRIPTION**

This unit covers the competencies required to carry out footwear construction. It entails determining job requirement, operating footwear closing machines, performing footwear closing operations and checking and finishing shoe upper.

**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. Determine job requirement | * 1. Follow standard operating procedures (SOPs) according to organization setup   2. Comply with occupational health and safety requirements according to OSHA   3. Use appropriate ***personal protective equipment (PPE)*** in accordance with SOPs   4. Identify job requirements from specifications, drawings, job sheets or work instructions |
| * + 1. Determine method of shoe construction | * 1. Function of the shoe is determined according to job specifications   2. ***Lasting method*** is determined according to job specifications.   3. Sole attachment method is determined according to job requirement.   4. ***Bottom stock components*** are determined according to job requirements |
| * + 1. Identify shoe construction tools, machines and equipment | * 1. Level of production is determined according to organization infrastructure and market demand   2. Type/ function of the shoe is determined according to job specifications.   3. ***Shoe construction tools, equipment and machines*** are determined according to job specifications |
| * + 1. Make leather shoe | * 1. Shoe upper components are paired “married up” according to job specifications.   2. Shoe upper is lasted according to job specifications.   3. Shoe is heat set according to materials used   4. Shoe sole is attached to shoe upper according to method of construction |

**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. Lasting method may include but are not limited to | * Flat lasting * Vertical lasting * Out flanged lasting * String lasting * Slip lasting |
| 1. Bottom stock components may include but are not limited to | * Sole * In-sole * Stiffeners and toe puff * Heels * Shanks |
| 1. Shoe construction tools, equipment and machines may include but are not limited to | * Hand tools and equipment * Lasting pliers * Pair of pincers * Last * Machines * Back molding machine * Lasting machine * Roughing machine * Cementing machine * Heat setting machine * Sole attaching machine |

**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:

* Adjusting and setting procedures
* Measuring thickness of leather using thickness gauge and ruler
* Communicating and interacting skills
* Interpreting work ticket

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Safe work practices
* Machine’s parts and function and adjustments
* Tools
* Familiarity with upper and lining component parts
* Quality standards
* Maintenance
* Positive work values (being organize, cost, quality and safety consciousness, patience, attention to details, etc.)
* 5S

**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 job requirement 2. Determined method of shoe construction 3. Identified shoe construction tools, machines and equipment 4. Made leather shoe |
| 1. Resource Implications | The following resources must be provided:   * 1. Splitting machine   2. Workplace with proper lighting and ventilation   3. Work ticket   4. Materials relevant to the proposed activity   5. Tools and equipment appropriate for measuring leather substance |
| 1. Methods of Assessment | Competency may be assessed through:   1. Interview 2. Observation 3. Written tests 4. Practical 5. Third party reports |
| 1. Context of Assessment | Competency may be assessed on:   1. On the job 2. Off the job 3. In a Simulated workplace setting |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry subsector, workplace and job roles is recommended. |

## CARRY OUT FOOTWEAR FINISHING OPERATIONS

**UNIT CODE:** TEX/OS/FW/CR/06/5/A

**UNIT DESCRIPTION**

This unit covers the competencies required to carry out footwear construction. It entails identifying footwear operations, tools and equipment for footwear finishing operations and carrying out finishing operations

**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 footwear finishing operation | * 1. Constructed shoe is analyzed according to ***method of construction.***   2. ***Shoe finish operations*** are selected according to job specification |
| 1. Identify tools and equipment for footwear finishing operations | * 1. Level of production is determined according to organization infrastructure and market demand   2. Method of shoe constructed is determined according to job specifications.   3. ***Shoe finishing tools, equipment and machines*** are determined according to job specifications |
| 1. Carry out finishing operations | * 1. Perform finishing operations according to customer specifications and workplace procedures.   2. Check footwear against specifications to ensure correct sizing   3. Identify faults, report and return to appropriate section for repair according to quality standards   4. Complete production and other records |

**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. Method of construction may include but are not limited to | * Welted * Veldtschoen. |
| 1. Shoe finish operations may include but are not limited to | * Heel pairing * Heel scour * Edge pare * Slip lasts * Stain heel * Clean uppers and welts * Ink edges |
| 1. Shoe finishing tools, equipment and machines may include but are not limited to | * Edge pairing machine * Naumkeag machine * Hot waxing machine * Heel pairing machine |

**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:

* Trimming
* Sizing and pairing
* Cleaning and polishing
* Finishing machine operation
* Quality control
* Interpreting work ticket
* Communicating and interacting skills

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Safe work practices and procedures and use of personal protective equipment (PPE)
* Standard Operating Procedures (SOPs)
* Characteristics of typical materials used in footwear finishing
* Required finishing procedures
* Industry and product processes, tools, machines and equipment
* Recording and reporting practices.

**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 footwear finishing operation 2. Identified and used tools and equipment for footwear finishing operations 3. Carried out finishing operations |
| 1. Resource Implications | The following resources must be provided:   * 1. Workplace with proper lighting and ventilation   2. Personal Protective Equipment (PPE)   3. Footwear finishing tools, equipment and machines (Edge pairing, heel souring and edge trimming machines)   4. Constructed shoe   5. Finishing materials (wax, polish and solvents) |
| 1. Methods of Assessment | Competency may be assessed through:   1. Interview 2. Observation 3. Written tests 4. Practical 5. Third party reports |
| 1. Context of Assessment | Competency may be assessed on:   1. On the job 2. In a Simulated workplace setting |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry subsector, workplace and job roles is recommended. |

## CARRY OUT FOOTWEAR SHOE ROOM OPERATIONS

**UNIT CODE:** TEX/OS/FW/CR/07/5/A

**UNIT DESCRIPTION**

This unit covers the competencies required to carry out footwear shoe room operations. It entails identifying shoe room operations, tools and equipment and carry out shoe room operations.

**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 shoe room operations | * 1. Constructed shoe is analyzed according to ***method of construction***.   2. ***Shoe room operations*** are selected according to job specification |
| 1. Identify tools and equipment for shoe room operations | * 1. Level of production is determined according to organization infrastructure and market demand   2. Method of shoe constructed is determined according to job specifications.   3. ***Shoe room operation tools, equipment and machines*** are determined according to job specifications |
| 1. Carry out shoe room operations | * 1. Perform shoe room operations according to customer specifications and workplace procedures.   2. Check footwear against specifications to ensure correct pairing and sizing   3. Identify faults, report and return to appropriate section for repair according to quality standards   4. Complete production and other records |

**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. Method of construction may include but are not limited to | * Welted * Veldtscheon * Cemented on/direct stuck |
| 1. Shoe room operations may include but are not limited to | * Branding * Cleaning and Dressing * Faking * Fitting sock lining, heel padding and lacing * Packing and Dispatch |
| 1. Shoe room operation tools, equipment and machines may include but are not limited to | * Embossing machine * Size stamping machine * Brushing/Polishing machine * Spraying Machine |

**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:

* Sizing and pairing
* Cleaning/Dressing and polishing
* Embossing, branding and Printing
* Shoe room machines operation
* Quality control
* Interpreting work ticket
* Communicating and interacting skills

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Safe work practices and procedures and use of personal protective equipment (PPE)
* Standard Operating Procedures (SOPs)
* Characteristics of typical materials used in footwear shoe room operations
* Required shoe room operation procedures
* Industry and product processes, tools, machines and equipment
* Recording and reporting practices.

**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 shoe room operations 2. Identified and used tools and equipment for shoe room operations 3. Carried out shoe room operations |
| 1. Resource Implications | The following resources must be provided:   * 1. Workplace with proper lighting and ventilation   2. Personal Protective Equipment (PPE)   3. Footwear shoe room operation tools, equipment and machines   4. Constructed shoe   5. Shoe room operation materials |
| 1. Methods of Assessment | Competency may be assessed through:   1. Interview 2. Observation 3. Written tests 4. Practical 5. Third party reports |
| 1. Context of Assessment | Competency may be assessed on:   1. On the job 2. In a Simulated workplace setting 3. During industrial attachment |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry subsector, workplace and job roles is recommended. |