

**REPUBLIC OF KENYA**

**NATIONAL OCCUPATIONAL STANDARDS**

**FOR**

**FOOTWEAR MAKER**

**KNQF LEVEL 4**

**OCCUPATIONAL STANDARDS ISCED CODE: 0723 354A**

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**Council Secretary/CEO/Chief Principal**

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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. 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 Making Level 4. 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,**

**STATE DEPARTMENT FOR TVET**

**MINISTRY OF EDUCATION**

# PREFACE

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

The Technical and Vocational Education and Training Act No. 29 of 2013 on Reforming Education and Training in Kenya, emphasized the need 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.

This Occupational Standard has been developed in adherence to the Kenya National Qualification Framework and CBETA standards and guidelines in conjunction with Leather Sector Skills Advisory Committee (SSAC). These occupational standards will be the bases for development of competency-based curriculum for Footwear Making Level 4. 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,**

**XXXXXX**

# 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 appreciate National Leather Sector Skills Committee who enabled the development of this Occupational standard. I recognize with appreciation the role of the SSC in ensuring that competencies required by the industry are addressed in this curriculum.

I also thank all stakeholders in the Leather sector for their valuable input and all those who participated in the process of developing this Occupational standard.

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

**COUNCIL SECRETARY/CEO**

**XXXXXXXXXXXXXX**

# ABBREVIATION AND ACRONYMS

2D Two Dimensional

CC Common Competency

CR Core Competency

FW Footwear

ICT Information Communication Technology

NEMA National Environmental Management Authority

OSHA Occupation Safety and Health Act

OSHS Occupation Safety and Health Standards

PESTEL Political Economic Social Technological Environmental and Legal

PPE Personal Protective Equipment

SSAC Sector Skills Advisory Committee

SWOT Strengths Weaknesses Opportunities and Threats

TEX Textile

TVET Technical and Vocational Education and Training

# KEY TO UNIT CODE



# 

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# OVERVIEW

Footwear maker consists of competencies that an individual must possess to work in a footwear production industry. It involves 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.

Units of competence comprising Footwear production level 4 qualification include the following basic, common and core units:

**COMMON UNITS OF LEARNING**

|  |  |
| --- | --- |
| **Unit Code** | **Unit Title** |
| **0723 351 01A** | Footwear production practices and principles |
| **0723 351 02A** | Foot measurements and calculations |

**CORE** **UNITS OF LEARNING**

|  |  |
| --- | --- |
| **Unit Code** | **Unit Title** |
| **0723 251 03A** | Carry Out Foot Wear Materials preparation |
| **0723 251 04A** | Perform footwear closing operations |
| **0723 251 05A** | Carry out footwear construction and finishing |
| **0723 251 06A** | Perform footwear product repair |
| **0723 351 07A** | Carry out Foot Wear pattern cutting |
| **0723 351 08A** | Carry out Foot Wear Materials preparation |
| **0723 351 09A** | Carry out Footwear closing operations |
| **0723 351 10A** | Carry out Footwear construction and finishing |

# 

## CARRY OUT FOOT WEAR MATERIALS PREPARATION

**UNIT CODE:** **0723 251 01A**

**UNIT DESCRIPTION**

This unit specifies the competencies required to carry out Foot Wear Materials Preparation. It involves Utilizing cutting tools, equipment, materials and machines, making and cutting footwear patterns, identifying footwear materials, cutting footwear materials, inspecting footwear components, component marking and preparation

**ELEMENTS AND PERFORMANCE CRITERIA**

| **ELEMENT**  These describe the **key outcomes** which make up **pattern cutting 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. Utilize cutting and material preparation tools, machines equipment and materials. | * 1. Pattern making tools, equipment, materials and machines are utilized according to job requirements   2. Pattern cutting tools, equipment, materials and machines are utilized according to job requirements   3. Component preparation tools, equipment, materials and machines are utilized according to job requirements   4. Workplace practices are maintained as per OSHA   5. Standard operating procedures (SOPs) are followed according to organization set up.   6. Footwear pattern cutting tools equipment and machine are maintained and stored within agreed organizational schedule.   7. Legal requirements, standards, procedures and regulations are observed as per professional codes |
| 1. Make and cut footwear patterns | * 1. Footwear sketches and illustrations are interpreted in relation to design   2. New footwear patterns are made, or existing patterns are adapted to meet the initial footwear design   3. Footwear pattern specifications are adjusted as per the product design and allowances required   4. Methods of pattern cutting are identified as per the job requirement   5. Footwear Patterns are cut as per the standard form   6. Footwearpatterns are confirmed as per the design specification   7. Machine outputs are tested or organized in accordance with company procedures to ensure required standards are met |
| 1. Identify footwear materials | 3.1 Footwear materials are identified according to the job requirements   * 1. Footwear materials are selected and sorted as per the job requirement   2. Quality and characteristics of the footwear material are checked according to job requirements   3. Legal requirements, standards, procedures and regulations are observed as per professional codes   4. Records and documents are maintained as per the organizational policy |
| 1. Cut footwear materials | * 1. Machine output is determined or organized in accordance with company procedures to ensure required standards are met   2. Footwear materials are cut and ensured free from production and handling damages   3. Footwear cut material are correctly sorted to assist the next stage of production   4. Footwear batch of components are produced to match the work ticket and the company’s production targets   5. Foot wear materials wastage is minimized according to organizational policies   6. Legal requirements, standards, procedures and regulations are observed as per professional codes   7. Written instructions are observed as per the job requirements   8. Workplace practices are maintained as per OSHA   9. Records and documents are maintained as per the organizational policy |
| 1. Inspect footwear components | * 1. Footwear component color and shade is checked according to job specifications.   2. Footwear components size and pairing is checked according to job specifications.   3. Footwear components defects are identified according to job requirements.   4. Footwear component quality and quantities are checked as per work schedules   5. Footwear components are checked according to the design.   6. Footwear components are correctly sorted to assist the next stage of production   7. Work that does not conform is corrected to required quality standards |
| 1. Component marking and preparation | * 1. Component marking methods are identified according to the type of shoe   2. Selection of component parts for the style being worked on is done according to job specifications.   3. Components marking is carried out according to the type of shoe.   4. Footwear components substance is checked according to job specification.   5. Splitting operation is carried out according to job specifications   6. Skiving operation is carried out according to shoe design and job specifications   7. Footwear components are correctly sorted to assist the next stage of production according organizational policy |

**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.

| Variables | Range |
| --- | --- |
| 1. Footwear cutting and material preparation tools, machines, equipment and materials   may include but are not limited to | * Cutting knife * Cutting mat * Cutting board * Masking tape * Mannila paper * Clicking machine * Drawing materials * Scissors * Skiving machines/tools * Splitting machines/tools * Marking tools |
| 1. Selection may include but are not limited to | * Sources * Type of material * Job requirement |
| 1. Defects may include but are not limited to | * Gorge marks * Cuts * Tick bites * Brand marks * Scratches * Tear * Loose threads on fabric |
| 1. Marking methods may include but are not limited to | * Crayon marking * Notch marking * Color marking * Lining stamping |
| 1. Types of skive may include but are not limited to | * Folding * Underlay * Closed seam * Raw edge |
| 1. Component marking may include but are not limited to | * Stitch marking * Position marking * Decoration points |
| 1. Footwear components may include but not limited to: | * Upper components * Bottom components |
| 1. Machine output may include but are not limited to | * Pattern samples * Service samples * Machine operation * Number of components |
| 1. Machine adjustments parameters include may but are not limited to | * Machine setting * Sharpening * Pressure setting |
| 1. Workplace practices include may but are not limited to | * Housekeeping * Handling of tools, equipment and machines * OSHA |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required Skills**

* Cutting
* Drawing and sketching
* Operation of cutting tools, equipment and machines
* Identifying and selecting pattern making materials
* Interpreting sketches and illustrations
* Splitting
* Skiving
* Mark identification skill
* Use of tools
* Interpreting work ticket
* Communicating and interacting skills
* Safety practices

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Interpretation of work ticket
* Types of shoes
* Methods of pattern making
* Types of material, leather types and finishes
* Tools, machines and equipment operating procedures
* Basic machine maintenance procedures
* Basic product knowledge
* Footwear terms
* Skiving and splitting techniques
* Positive work values (Quality, cost and safety consciousness, attention to details, patience, perseverance, etc.).
* Record keeping
* Safe work practices
* Workshop rules and regulations

**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. Operated cutting and material preparation tools, machines and equipment for footwear. 2. Interpreted footwear sketches and made footwear patterns 3. Drew and cut footwear patterns 4. Selected footwear materials 5. checked the quality and characteristics of the footwear material 6. Inspected footwear components 7. Carried out component marking 8. Performed skiving operations 9. Performed splitting operations 10. Maintained workplace practices 11. maintained records and documents 12. Determined machine outputs |
| 1. Resource Implications | The following resources must be provided:   * 1. Access to relevant workplace where assessment can take place   2. Appropriately simulated environment where assessment can take place.   3. Resources relevant to the proposed activity or tasks. |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Written tests   2. Practical test   3. Projects   4. Third party reports   5. Oral test   6. Interview   7. Observation |
| 1. Context of Assessment | The competency may be assessed:   1. workplace 2. Simulated workplace |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended. |

## PERFORM FOOTWEAR CLOSING OPERATIONS I

**UNIT CODE:** **0723 251 02A**

**Unit description**

This unit covers the competencies required to perform footwear closing operations. It entails utilizing tools, equipment, materials and machines for closing operations, performing footwear closing operations and carrying out shoe upper 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. Utilize tools, equipment, materials and machines for closing operations | 1. ***Tools, equipment, machines and materials*** for footwear closing operation are utilized as per the job requirement 2. ***Tools, equipment and machines*** for footwear closing operation are selected as per the job requirement 3. Footwear closing tools, equipment and ***machines parameters*** are Set/adjusted carried out as per job specifications 4. Footwear closing tools, equipment and machines are maintained within agreed schedule 5. Standard operating procedures (SOPs) are followed according to organization set up. 6. Written instructions are observed as per the job requirements 7. Legal requirements, standards, procedures and regulations are observed as per professional codes. 8. ***Workplace practices*** are maintained as per OSHA 9. Records and documents are maintained as per the organizational policy |
| 1. Perform footwear closing operations | 1. ***Closing operation*** is carried out according to job specification 2. Work that does not conform is corrected to required quality standards 3. Footwear uppers are correctly sorted to assist the next stage of production 4. Written instructions are observed as per the job requirements 5. Legal requirements, standards, procedures and regulations are observed as per professional codes. 6. ***Workplace practices*** are maintained as per OSHA 7. Records and documents are maintained as per the organizational policy 8. Footwear closing machines are serviced/ maintained within organizations schedules. 9. Comply with occupational health and safety requirements according to OSHA |
| 1. Carry out shoe upper finishing operations. | 1. ***Footwear finishing machine, tools, equipment*** are materials are utilized according to job specifications 2. ***Footwear finishing machine, tools, equipment*** are materials are selected according to job specifications 3. Footwear finishing tools, equipment and ***machines parameters*** are Set/adjusted carried out as per job specifications 4. ***Trimming*** is carried out according to type of shoe upper. 5. Shoe upper lacing holes are reinforced where applicable according to type of shoe. 6. Temporary lacing is carried out according to type of shoe upper. 7. ***Finishing operations*** are carried out as per the job requirements 8. Quality of shoe upper is checked out according to job specifications. 9. Work that does not conform is corrected to required quality standards 10. Shoe uppers are correctly sorted to assist the next stage of production 11. Written instructions are observed as per the job requirements 12. Legal requirements, standards, procedures and regulations are observed as per professional codes. 13. ***workplace practices*** are maintained as per OSHA 14. Records and documents are maintained as per the organizational policy |

**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. Closing operation may include but are not limited | * Topline treatment methods * Folding * Binding * Bagging * Collar * Padding * Edge treatment methods * Raw edge * Burnishing * Staining * Folding * Binding |
| 1. Footwear closing tools equipment machines and materials may include but are not limited to | * **Tools**   + Bone folder   + Hammer   + Hand stitching needle   + Adhesive brush   + Dressing tool   + Shears/scissors/cutters   + Leather substance gauge   + Cleaning brush * **Materials.** * Adhesive * Threads * Reinforcing tapes * **Machines** * Sewing * Trimming * Eyeleting |
| 1. Trimming may include but are not limited to | * Loose threads * Excess allowance |
| 1. Finishing operations may include but are not limited to | * Top line and edge treatment * Types of seams |
| 1. Workplace practices may include but are not limited to | * Compliance with safety hazards and measures while working * Safety in machine setting and maintenance * Use of PPE |

**REQUIRED SKILLS AND KNOWLEDGE**

**Required Skills**

The individual needs to demonstrate skills in:

* Stitching/ fitting shoe upper component
* Finishing operations.
* Accuracy
* Neatness
* Safety practices
* Machine operation and adjustment
* Application of adhesives
* Adjusting and setting procedures
* Communicating and interacting skills
* Interpreting work ticket
* maintenance

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* closing operations
* Safe work practices
* Tools equipment and machines
* Closing materials
* Finishing operations
* Types of seams
* Types of stitches
* Finishing materials
* 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. Carried out finishing operation   7. Utilized the closing machines   8. Demonstrated safety practices   9. Operated footwear closing machines   10. Reinforced shoe lacing holes   11. Correctly sorted out shoe uppers   12. Followed written instructions   13. Kept records |
| 1. Resource Implications. | The following resources must be provided:  2.1 Access to relevant workplace where assessment can take place  2.2 Appropriately simulated environment where assessment can take place.  2.3 Resources relevant to the proposed activity or tasks. |
| 1. Methods of Assessment. | Competency may be assessed through:   * 1. Practical tests   2. Observation   3. Questionnaire   4. Case studies   5. Written examinations   6. Oral presentation/tests |
| 1. Context of Assessment. | The competency may be assessed:  4.1 workplace  4.2 Simulated workplace |
| 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 AND FINISHING I

**UNIT CODE:** **0723 251 03A**

**UNIT DESCRIPTION**

This unit covers the competencies required to carry out footwear construction. It entails utilizing tools, equipment and materials for construction and finishing operations, aassembling shoe upper and bottom components, carrying out conditioning and shoe lasting operations, performing sole attaching operations and carrying out basic 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. Utilizing tools, equipment and materials for construction and finishing operations | 1. Shoe construction tools, machines and equipment are utilized as per job specification 2. Shoe lasting tools, machines and equipment are utilized as per job specification 3. Shoe conditioning, equipment and machines are utilized according to job specifications 4. Sole attaching, tools, equipment and ***machines parameters*** are Set/adjusted as per job specifications 5. Tools, equipment, machines and materials for footwear finishing operations are utilized according to method of finishing 6. Tools, equipment, machines and materials for footwear shoe room operations are utilized based on the job requirement 7. Workplace practices are maintained as per OSHA 8. Standard operating procedures (SOPs) are followed according to organization set up. 9. Records and documents are maintained as per the organizational policy |
| 1. Assemble shoe upper and bottom components | * 1. Job requirements are identified according to job specifications.   2. Shoe upper, bottom components and lasts are “married up” according to job specifications   3. Fitting of toe puffs and stiffeners is carried out according to job specifications   4. Shoe construction tools, machines and equipment are utilized as per organizational infrastructure.   5. Standard operating procedures (SOPs) are followed according to organization set up.   6. Assembled uppers, bottom components and lasts are correctly sorted to assist the next stage of production.   7. Written instructions are observed as per the job requirements |
| 1. Carry out conditioning and shoe lasting operations | 1. Methods ofconditioning are identified according to the organizational infrastructure and upper material 2. Conditioning, equipment and machines are utilized according to job specifications 3. Conditioning equipment and machines parameters are Set/adjusted as per job specifications 4. Lastingmethod is determined according to job specifications 5. Shoe lasting tools, machines and equipment are utilized as per organizational infrastructure. 6. Lasting tools, equipment and machines parameters are Set/adjusted as per job specifications. 7. Lasting operations are carried out according to job specifications. 8. Workplace practices are maintained as per OSHA |
| 1. Perform sole attaching operations | 1. Shoe attaching methods are identified according to the type of shoe 2. Shoe construction tools, equipment and machines are utilized according to job specifications 3. Sole attaching, tools, equipment and machines parameters are Set/adjusted as per job specifications. 4. Shoe is heat set according to materials used 5. Sole attaching operations are carried out according to method of construction 6. Written instructions are observed as per the job requirements 7. Workplace practices are maintained as per OSHA |
| 1. Carry out basic finishing operations | * 1. Carry out Finishing operations in the correct sequence according to required specification   2. Finished shoes are correctly sorted to assist the next stage according to the organizational policy   3. Shoe room operations are carried out as per the job requirements   4. Quality of the shoe is inspected based on the job specifications   5. Faults are identified and report returned to appropriate section for Finishing and shoe room operations according to job specifications   6. Shoe packaging operations are carried out as per job requirement   7. Workplace practices are maintained as per OSHA   8. Records and documents are maintained as per the organizational policy   9. 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. Shoe construction tools, machines and equipment may include but are not limited to | * Hand tools and equipment * Lasting pliers * Stitching * Pair of pincers * Last * Machines * Back molding machine * Lasting machine * Roughing machine * Cementing machine * Heat setting machine * Sole attaching machine |
| 1. Shoe finishing and shoe room tools, machines, equipment and materials may include but are not limited to | * Edge pairing machine * Hot waxing machine * Heel pairing machine * Embossing machine * Size stamping machine * Brushing/Polishing machine * Spraying Machine * Hand brush * Pigments * Polish * Dyes |
| 1. Construction method may include but are not limited to | * Veldtschoen * Machine welted * Cemented |
| 1. Lasting methods may include but are not limited to s | * Flat lasting * Out flanged * Vertical lasting |
| 1. Conditioning operations may include but are not limited to | * Contact mulling * Rapid conditioning * Toe steaming |
| 1. Sole attaching operations | * Sole preparation * Heat setting * Sole attaching * Removal from last * pairing |
| 1. Machines parameters may include but are not limited to | * Setting and adjustment * Routine maintenance |
| 1. Sole attaching operations may include but are not limited to | * Bottom and sole roughing * Adhesive application * Heat activation * Sole setting and attachment |
| 1. Shoe finishing and shoe room operations may include but are not limited to | * Heel pairing * Heel scour * Edge pair * Slip lasts * Stain heel * Clean uppers and welts * Ink edges * Trimming * Lacing * Branding * Brushing and polishing * Labeling * Cleaning and dressing * Fitting sock lining, heel padding and lacing * Final inspection * Packing and dispatch |
| 1. Faults may include but not limited to | * Creases * Scratches * Stains * Improper pairing |

**REQUIRED SKILLS AND KNOWLEDGE**

**Required Skills**

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

* Accuracy
* Neatness
* Safety practices
* Machine’s parts and function and adjustments
* Sizing and pairing
* Finishing and shoe room operations
* Cleaning and polishing
* Finishing tools, machines and equipment operation
* Familiarity with upper and lining component parts
* Faults identification
* Quality standards
* Machine maintenance
* Machine and equipment setting procedures
* Communicating and interacting skills
* Interpreting work ticket
* Maintenance
* Heat setting.

**Required Knowledge**

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

* Safe work practices
* Closing tools equipment and machines.
* Finishing and shoe room materials
* Finishing and shoe room operations
* Familiarity with upper and lining component parts
* Common faults associated with shoe room operations
* Quality standards
* Machine maintenance
* Positive work values (being organize, cost, quality and safety consciousness, patience, 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. Determined method of shoe construction 2. Utilized shoe construction tools, machines and equipment 3. Assembled shoe upper, bottom components and ‘last plant’ 4. Carried out conditioning operations 5. Carried out shoe lasting operations 6. Carried out heat setting. 7. Performed sole attaching operations 8. Utilized tools, machines and equipment for footwear finishing and shoe room operations 9. Carried out finishing operations 10. Carried out shoe room operations 11. Identified faults on footwear 12. Kept records 13. Observed safety practices. |
| 1. Resource Implications | The following resources must be provided:  2.1 Access to relevant workplace where assessment can take place  2.2 Appropriately simulated environment where assessment can take place.  2.3 Resources relevant to the proposed activity or tasks. |
| 1. Methods of Assessment | Competency may be assessed through:   1. Interview 2. Observation 3. Written tests 4. Practical tests 5. Projects 6. Third party reports 7. Oral tests. |
| 1. Context of Assessment | The competency may be assessed:  4.1 workplace  4.2 Simulated workplace |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry subsector, workplace and job roles is recommended. |

## REPAIR FOOTWEAR PRODUCTS

**UNIT CODE: 0723 251 04A**

**UNIT DESCRIPTION**

This unit covers the competencies required to carry out footwear repair operations. It entails identifying shoe repair operation, tools, equipment, materials, machines and carrying out shoe repair 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 repair operation | 1. Shoe repair requirements are assessed based on the job requirement 2. Footwear ***repair operations*** are identified according to the job requirements 3. Footwear ***repair operations*** are selected according to the job requirements 4. Standard operating procedures (SOPs) are followed according to organization set up. 5. Written instructions are observed as per the job requirements 6. Legal requirements, standards, procedures and regulations are observed as per professional codes. 7. ***workplace practices*** are maintained as per OSHA 8. Records and documents are maintained as per the organizational policy |
| 1. Utilize tools, equipment and materials for shoe repair operations | 1. Tools equipment machines and materials are identified as per the job requirements 2. Tools equipment machines and materials are selected as per the job requirements 3. ***Repairing tools, equipment*** and ***machines parameters*** are Set/adjusted and used as per job specifications. 4. Standard operating procedures (SOPs) are followed according to organization set up. 5. Tools equipment’s and machines are handled with care according to manufacturer’s specifications 6. Written instructions are observed as per the job requirements 7. Legal requirements, standards, procedures and regulations are observed as per professional codes. 8. ***Workplace practices*** are maintained as per OSHA 9. Records and documents are maintained as per the organizational policy |
| 1. Carry out shoe repair operations | 1. ***Preparations*** are carried out according to the job requirements 2. New components are attached according to the required repair work 3. Trimming of any excess materials is carried out based on the job requirement 4. Waste is minimizing as per the organizational policy 5. ***Finishing operations*** are carried as per job requirement 6. Faults are identified and report returned to appropriate section for repair according to job specifications 7. Written instructions are observed as per the job requirements 8. Legal requirements, standards, procedures and regulations are observed as per professional codes. 9. ***workplace practices*** are maintained as per OSHA 10. Records and documents are maintained as per the organizational policy |

**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. Repair operations may include but are not limited to: | * Soling * Patching * Stitching * Sock lining fitting |
| 1. Preparations may include but are not limited to: | * Cleaning * Patch work * Bottom components preparations * Thread waxing * Buffing * Sole scoring |
| 1. Finishing operations may include but are not limited to: | * Dying * Polishing * Lacing |
| 1. Repairing tools, equipment may include but are not limited to: | * Clicking knives * Guillotine * Scissors * Cutting mats * Mallets * Shoe hammers * Cutting boards * Fid awl * Bone folder * Punching board * Oil stone * Punches * Lasting pliers * Lasts * Pincers * Stitching awl * Wing divider * Measuring tapes * Shoe tape measure * Flexible tape * Foot ruler |
| 1. Machines parameters may include but are not limited to: | * Setting and adjustment * Routine maintenance |
| 1. Fault may include but are not limited to: | * Creases * Scratches * Stains |
| 1. Workplace practices may include but are not limited to: | * Compliance with safety hazards and measures while working * Safety in machine setting and maintenance * Use of PPE |

**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:

* Shoe repair
* Sizing and pairing
* Cleaning/Dressing and polishing
* Repair machines operation
* Quality control
* Interpreting work ticket and written instructions
* Communicating and interacting skills
* Demonstrate safety practices.
* Record keeping.

**Required knowledge**

The individual needs to demonstrate knowledge of:

* Safe work practices
* Standard Operating Procedures (SOPs)
* Materials used in footwear repair operations
* Required repair operation procedures
* Recording and reporting practices.
* Tools, machines equipment and materials
* Common faults associated with repairing operations
* Care and handling of shoes, materials, tools and equipment’s
* Machine maintenance

**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. Assessed repair work 2. Identified shoe repair operations 3. Identified and used tools and equipment for shoe repair operations 4. Carried out shoe repair operations |
| 1. Resource Implications | The following resources must be provided:  2.1 Access to relevant workplace where assessment can take place  2.2 Appropriately simulated environment where assessment can take place.  2.3 Resources relevant to the proposed activity or tasks. |
| 1. Methods of Assessment | Competency may be assessed through:   1. Interview 2. Observation 3. Written tests 4. Practical tests 5. Oral tests 6. Third party reports 7. Projects 8. Portfolio of evidence |
| 1. Context of Assessment | The competency may be assessed:  4.1 workplace  4.2 Simulated workplace |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry subsector, workplace and job roles is recommended. |

## FOOT MEASUREMENTS CALCULATIONS

**UNIT CODE: 0723 351 02A**

**UNIT DESCRIPTION**

This unit specifies the competencies required to carry out foot measurements. 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. Apply knowledge of basic footwear anatomy | * 1. Foot requirements are assessed according to the foot anatomy.   2. Legal requirements, standards, procedures and regulations are observed as per professional codes.   3. Workplace practices are maintained as per OSHA   4. Records and documents are maintained according to organizational policy |
| 1. Carryout foot measurements | 1. ***Measuring devices, tools, equipment and machines*** are identified according to job requirement. 2. Records and documents are maintained based on the job specifications. 3. ***Calculations*** *are* carried out based on the measurements obtained 4. Foot measurements are carried out based on the foot anatomy. 5. Footwear sizes are identified based on the Sizing systems 6. Standard geometrical measurements are calculated based on the standard last length |
| 1. Identify footwear sizing system | 1. shoe sizing systems are identified according to the job requirement 2. knowledge of shoe sizing system is demonstrated according to job requirement 3. records and documents are maintained according to organizational policy |

**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 * Brannock device |
| 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 illustrations and flow charts
* Measuring and calculating manually
* Recording measurement
* Operating electronic calculating devices
* Communicating effectively

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Drawing and sketching
* 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 |
| 1. Resource Implications | The following resources must be provided:  2.1 Access to relevant workplace where assessment can take place  2.2 Appropriately simulated environment where assessment can take place.  2.3 Resources relevant to the proposed activity or tasks. |
| 1. Methods of Assessment | Competency may be assessed through:   1. Portfolio Assessment 2. Interview 3. Case Study/Situation 4. Observation/Demonstration and oral questioning 5. Practical test 6. Written test |
| 1. Context of Assessment | The competency may be assessed:  4.1 workplace  4.2 Simulated workplace |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry Sector, workplace and job role is recommended. |

## CORE UNITS OF LEARNING MODULE II

## CARRY OUT FOOT WEAR PATTERN CUTTING

**UNIT CODE:** **0723 351 03A**

**UNIT DESCRIPTION**

This unit specifies the competencies required to carry out pattern cutting. It involves developing footwear patterns, performing footwear pattern cutting and carrying out footwear pattern grading.

**ELEMENTS AND PERFORMANCE CRITERIA**

| **ELEMENT**  These describe the **key outcomes** which make up **pattern cutting 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. Develop footwear patterns | 1. Footwear sketches and illustrations are interpreted in relation to design 2. ***Tools equipment, materials and machines*** are identified in accordance with the sketches and illustrations 3. Sketches and illustrations are interpreted to specifications as per the design 4. Footwear patterns are developed to meet the initial footwear design as per the sketches and illustrations 5. New or adapted footwear patterns are developed to meet the initial footwear design 6. Existing footwear last or new last, are adapted/procured as per the design 7. Legal requirements, standards, procedures and regulations are observed as per professional codes. 8. ***Workplace practices*** are maintained as per OSHA 9. records and documents are maintained as per organizational policy |
| 2.Perform footwear pattern cutting | 1. . Footwear cutting tools, equipment, materials and machines are identified according to the job requirements 2. Footwear Pattern cutting tools equipment and machine are selected according to job requirements 3. Footwear Patterns are cut as per the standard forms 4. Footwear cutting tools equipment and machine are maintained within agreed schedule 5. Footwear cutting tools, equipment and ***machines parameters*** are Set/adjusted and operations carried out as per manufacturers specifications 6. ***Machine outputs*** are tested or organized in accordance with company procedures to ensure required standards are met 7. Footwear pattern specification are adjusted as per the product design and allowances required 8. Care and handling of cut footwear patterns is observed based on the organizational policy 9. Legal requirements, standards, procedures and regulations are observed as per professional codes. 10. ***Workplace practices*** are maintained as per OSHA 11. records and documents are maintained as per the organizational policy |
| 3. Carry out footwear pattern grading | 1. Footwearpatterns are ***confirmed*** as per the design specification 2. ***Grading method*** are identified according to resource available and various needs 3. Footwear grading tools, equipment, materials and machines are identified according to the job requirements 4. Pattern grading is carried out according to different sizes and fittings. 5. Graded patterns are cheeked for visual proportion as per the sizes and fittings 6. The pattern trials are carried out as per the different sizes and fittings |

**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.

| Variables | Range |
| --- | --- |
| 1. Footwear cutting tools equipment, materials and machines   may include but are not limited to | * Cutting knife * Cutting mat * French curves * Cutting board * Masking tape * Mannila paper |
| 1. Machine output may include but are not limited to | * Product sample * Service samples * Machine operation |
| 1. Machine adjustments parameters include may but are not limited to | * Machine setting * Sharpening |
| 1. Workplace practices include may but are not limited to | * Housekeeping * Handling of tools, equipment and machines * Observing safety * OSHA |

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required Skills**

* Communication and interaction skills
* Cutting
* Drawing and sketching
* Operating of cutting tools, equipment and machines
* Identifying and selecting pattern making materials
* Interpreting work ticket
* Interpreting sketches and illustrations

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Grading methods
* Footwear sizing system
* Interpretation of work ticket
* Methods of pattern development.
* Material type and characteristics
* Foot measurements
* Lasts
* Safe work practices
* Equipment operating procedures
* Basic maintenance procedures
* Basic product knowledge
* Footwear terms
* Positive work values (Quality, cost and safety consciousness, attention to details, patience, perseverance, etc.).
* Record keeping

**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. interpreted Footwear sketches 2. Utilized footwear cutting tools, machines, equipment and materials 3. Developed footwear patterns 4. Observed legal requirements, standards, procedures and regulations 5. Maintained Workplace practices 6. Maintained records and documents 7. Maintained footwear cutting tools, equipment and machines 8. Tested machine outputs 9. Drew footwear patterns 10. Adjusted footwear pattern 11. Cut and confirmed footwear patterns 12. Identified Grading method 13. Carried out Pattern grading. 14. Carried out footwear pattern trial samples 15. Checked graded patterns |
| 1. Resource Implications | The following resources must be provided:  2.1 Access to relevant workplace where assessment can take place  2.2 Appropriately simulated environment where assessment can take place.  2.3 Resources relevant to the proposed activity or tasks. |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Written tests   2. Practical test   3. Projects   4. Third party reports   5. Oral tests   6. Interview   7. Observation |
| 1. Context of Assessment | The competency may be assessed:  4.1 workplace  4.2 Simulated workplace |
| 1. Guidance information for assessment | Holistic assessment with other units relevant to the industry Sector, workplace and job role is recommended. |

## CARRY OUT FOOT WEAR MATERIALS PREPARATION

**UNIT CODE: 0723 351 04A**

**Unit description**

This unit specifies the competencies required to carry out materials preparation. It involves identifying footwear materials, cutting footwear materials and component marking and preparation.

**ELEMENTS AND PERFORMANCE CRITERIA**

| **ELEMENT**  These describes the key outcomes which makes up material cutting 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 | 1. Footwear materials are identified according to the job requirements 2. Footwear materials are selected and sorted as per the job requirement 3. Check the quality and characteristics of the footwear material according to job requirements 4. ***Footwear material testing equipment and tools*** are identified according to according to test to be done 5. ***Tests*** to be carried out are determined based on the available resources 6. Legal requirements, standards, procedures and regulations are observed as per professional codes. 7. ***Workplace practices*** are maintained as per OSHA 8. records and documents are maintained as per the organizational policy |
| 2. Cut footwear materials | 2.1. Functions are assigned according to job specification  *2.2* ***Machine outputs*** is determined or organized in accordance with company procedures to ensure required standards are met  2.3 Footwear materials are cut and ensured free from production and handling damages  2.4 Footwear cut material are correctly sorted to assist the next stage of production  2.5 Footwear batch of components are produced to match the work ticket and the company’s production targets  2.6 Legal requirements, standards, procedures and regulations are observed as per professional codes.  2.7 Foot wear materials wastage is minimized according to organizational policies.  2.8 Written instructions are observed as per the job requirements  *2.9* ***Workplace practices*** are maintained as per OSHA  *2.10 R*ecords and documents are maintained as per the organizational policy |
| 3.Perform Component marking and preparation | 1. Component ***marking methods*** are identified according to the type of shoe 2. Select the correct component parts for the style being worked on 3. Tools, equipment, machines and materials are identified according to marking method 4. Take the necessary action when materials do not conform to quality standards according to organizational policy 5. Components are marked based on the type of shoe 6. Components position and stitch marking is carried out according to job requirements. 7. ***Decoration method*** is identified according to the shoe design 8. Edge staining procedure is identified according to shoe design 9. Tools and equipment are identified according to decoration method. 10. Decoration operations are carried out according to type of decoration 11. Work that does not conform is corrected to required quality standards 12. Footwear components are correctly sorted to assist the next stage of production according to organizational policy 13. Written instructions are observed as per the job requirements 14. Legal requirements, standards, procedures and regulations are observed as per professional codes. 15. ***Workplace practices*** are maintained as per OSHA 16. Records and documents are maintained as per the organizational policy |

**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.

| Variables | Range |
| --- | --- |
|  |  |
| 1. Workplace practices may include but are not limited to | * housekeeping * handling of tools, equipment and machines * observing safety * OSHA |
| 1. Footwear material testing equipment and tools include but are not limited to | * Sole adhesion tester * Measuring gauge * Abrassion testing machine |
| 1. Tests may include but are not limited to | * Rub fastness * Tear strengh of leather * Water spotting * Grain break * Colour fastness * Flexibility |
| 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. Machines parameters may include but not limited to | * Speed setting * Machine setting * Sharpening * Pressure setting |
| 1. Machine outputs may include but not limited to | * Number of components * Number of machines used * personel |

**Required Skills**

* Communicating and interacting skills
* Cutting
* Operating skills of cutting tools, equipment and machines
* Splitting
* Skiving
* Decoration
* Identifying and selecting skills
* Interpreting work ticket

**Required Knowledge**

The individual needs to demonstrate knowledge of:

* Interpretation of work ticket
* Material type and characteristics
* Types of footwear
* Types of footwear materials
* Types of skive
* Different leather types and finishes
* Familiarity with the types of upper and lining components
* Safe work practices
* Equipment operating procedures
* Routine maintenance procedures
* Basic product knowledge
* Footwear terminologies
* Positive work values (Quality, cost and safety consciousness, attention to details, patience, perseverance, etc.).
* Record keeping

**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. Maintained ***Workplace practices*** 2. Maintained records and documents 3. Utilized footwear cutting tools, equipment and machines 4. Maintained Footwear cutting tools, equipment and machines. 5. Carried out component marking 6. Carried out position/stitch marking 7. Carried out decoration operations 8. Performed skiving operations 9. Performed splitting operations 10. Footwear cutting tools, equipment and machines are identified and selected according to the job requirements 11. Set/adjusted and operated Footwear cutting tools, equipment and ***machines parameters*** 12. Determined ***Machine outputs*** 13. ensured Footwear components are free from production and handling damages 14. sorted and batched Footwear components 15. Minimized Foot wear materials wastage 16. observed written instructions |
| 1. Resource Implications. | The following resources must be provided:  2.1 Access to relevant workplace where assessment can take place  2.2 Appropriately simulated environment where assessment can take place.  2.3 Resources relevant to the proposed activity or tasks. |
| 1. Methods of Assessment. | Competency may be assessed through:   1. Written assessment. 2. Practical assessment 3. Projects 4. Third party reports 5. Interview |
| 1. Context of Assessment. | The competency may be assessed:  4.1 workplace  4.2 Simulated workplace |
| 1. Guidance information for assessment. | Holistic assessment with other units relevant to the industry Sector, workplace and job role is recommended. |

## PERFORM FOOTWEAR CLOSING OPERATIONS

**UNIT CODE: 0723 351 05A**

**UNIT DESCRIPTION**

This unit covers the competencies required to perform footwear closing operations. It entails utilizing tools, equipment, materials and machines for closing operations, performing footwear closing operations and carrying out shoe upper 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. Utilize tools, equipment, materials and machines for closing operations | 1. Tools, equipment, machines and materials for footwear closing operation are utilized as per job requirement 2. Footwear closing tools, equipment and ***machines parameters*** are Set/adjusted carried out as per job specifications 3. Footwear closing tools, equipment and machines are maintained within agreed schedule according to organization policy 4. Standard operating procedures (SOPs) are followed according to organization set up. 5. Written instructions are observed as per the job requirements 6. Legal requirements, standards, procedures and regulations are observed as per professional codes. 7. ***Workplace practices*** are maintained as per OSHA 8. Records and documents are maintained as per the organizational policy |
| 1. Perform footwear closing operations | 1. ***Footwear Closing machine, tools, equipment*** and ***materials*** are identified according to job specifications 2. Footwear closing tools, equipment and ***machines parameters*** are Set/adjusted carried out as per job specifications 3. ***closing operation*** is carried out according to job specifications 4. Work that does not conform is corrected to required quality standards 5. Footwear uppers are correctly sorted to assist the next stage of production according to organizational policy 6. Written instructions are observed as per the job requirements 7. Legal requirements, standards, procedures and regulations are observed as per professional codes. 8. ***Workplace practices*** are maintained as per OSHA 9. Records and documents are maintained as per the organizational policy 10. Footwear closing machines are serviced/ maintained within organizations schedules. |
| 1. Carry out shoe upper finishing operations. | 1. ***Footwear finishing machine, tools, and equipment*** are identified according to job specifications 2. Footwear finishing tools, equipment and ***machines parameters*** are Set/adjusted carried out as per job specifications 3. Loose thread and excess allowances are trimmed according to job requirement 4. Shoe upper lacing holes are reinforced where applicable according to type of shoe. 5. Temporary lacing is carried out according to type of shoe upper. 6. Quality of shoe upper is checked out according to job specifications. 7. Work that does not conform is corrected to required quality standards 8. Footwear components are correctly sorted to assist the next stage of production as per the organizational policy 9. Written instructions are observed as per the job requirements 10. Legal requirements, standards, procedures and regulations are observed as per professional codes. 11. ***workplace practices*** are maintained as per OSHA 12. Records and documents are maintained as per the organizational policy |

**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. Machine parameters may include but are not limited to | * Machine setting * Sharpening |
| 1. Personal protective equipment (PPE) may include but are not limited to | * Safety shoes * Dust mask * Aprons/ overall * Rubber gloves |
| 1. Closing operation may include but are not limited | **Topline treatment methods**   * Folding * Binding * Bagging * Collar * Padding   **Edge treatment methods**   * Raw edge * Burnishing * Staining * Folding * Binding |
| 1. Footwear closing tools equipment machines and materials may include but are not limited to | **Tools**   * + Bone folder   + Hammer   + stitching needle   + Adhesive brush   + Dressing tool   + Shears/scissors/cutters   + Leather substance gauge   + Cleaning brush   **Materials.**   * Adhesive * Threads * Reinforcing tapes |
| 1. Workplace practices may include but are not limited to | * Compliance with safety hazards and measures while working * Safety in machine setting and maintenance * Use of PPE |

**REQUIRED SKILLS AND KNOWLEDGE**

**Required Skills**

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

* Machine stitching/ fitting shoe upper component
* Finishing operations.
* Accuracy
* Neatness
* 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 equipment and machines.
* Use of PPE
* Shoe upper materials
* Topline and edge treatment
* Adhesives and auxiliaries.
* Types of seams
* Types of stitches
* Types of threads and needles
* 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. Used appropriate personal protective equipment (PPE) 2. Identified closing tools, equipment, machines and materials 3. Identified types of stitching machines 4. Set/adjusted and Operated footwear closing machines 5. Performed footwear closing operations 6. Carried out upper finishing 7. Reinforced shoe lacing holes 8. Checked and finished shoe upper 9. Complied with occupational health and safety requirements |
| 2.Resource Implications. | The following resources must be provided:  2.1 Access to relevant workplace where assessment can take place  2.2 Appropriately simulated environment where assessment can take place.  2.3 Resources relevant to the proposed activity or tasks. |
| 3.Methods of Assessment. | ***Competency may be assessed through:***   1. Practical tests 2. Observation 3. Questionnaire 4. Case studies 5. Written examinations 6. Oral presentation |
| 1. Context of Assessment. | The competency may be assessed:  4.1 workplace  4.2 Simulated workplace |
| 1. Guidance information for assessment. | Holistic assessment with other units relevant to the industry subsector, workplace and job roles is recommended. |

## PERFORM FOOTWEAR CONSTRUCTION AND FINISHING II

**UNIT CODE: 0723 351 06A**

**UNIT DESCRIPTION**

This unit covers the competencies required to carry out footwear construction. It involves applying knowledge of footwear production, identifying footwear production tools, machines and equipment, identifying footwear production materials and demonstrating footwear production practices Assembling shoe uppers, bottom components and ‘last plant, carrying out shoe lasting operations, carrying out conditioning operations and performing sole attaching 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. Apply knowledge of footwear production | * 1. Sequence /flow in shoe making is determined according to the principals and practices in footwear production   2. ***Parts and styles of footwear*** are identified, recognized according to design.   3. Footwear operations are maintained safely as per the production target   Legal requirements, standards, procedures and regulations are observed as per professional codes. |
| 1. Utilise footwear production tools, equipment and machines | * 1. ***Tools, equipment and machines*** are identified and selected based on work and manufacturer’s specifications.   2. Tools, equipment and machines for footwear production are identified according to job requirement   3. Handling and care requirements for tools, equipment and machines are identified according to organizational policy   4. ***Set up and operation of machine/s*** is carried out according to manufacturer’s manual |
| 1. Utilize footwear production materials | * 1. Types and sources of materials are identified as per work order   2. ***Materials*** are identified and selected in accordance with work order   3. Uses of materials for footwear production are identified in accordance with work order   4. Handling and care requirements for materials are identified according to organizational policy   5. OHS practices relevant to materials uses are identified according OHS Standards   6. Physical properties of materials are identified in accordance with work order   Common surface defects of materials are identified in accordance with work order |
| 1. Demonstrate footwear production practices | * 1. ***Production operations*** are reviewed to identify opportunities for process improvement according to organizational policy   2. Work load is prioritized to meet job orders and delivery dates according to organizational policy   3. Wastage of production material and time is minimized through consistent practice of quality procedures according to organizational policy   4. Responsibilities and duties are performed in a positive manner to promote cooperation within the workplace according to organizational policy   5. Problems, conflicts or contingencies are recognized and addressed and/or referred to ***appropriate person(s)*** according to organizational policy   6. Workplace practices are maintained as per OSHA |
| 1. Assemble shoe upper, bottom components and ‘last plant’ | 1. Job requirements are Identified according to job specifications. 2. Shoe upper, bottom components and lasts are “married up” according to job specifications 3. Fitting of toe puffs and stiffeners is carried out according to job specifications 4. Shoe construction tools, machines and equipment are identified as per organizational infrastructure. 5. Standard operating procedures (sops) are followed according to organization set up. 6. Assembled uppers, bottom components and lasts are correctly sorted to assist the next stage of production. 7. Written instructions are observed as per the job requirements 8. Legal requirements, standards, procedures and regulations are observed as per professional codes. 9. ***Workplace practices*** are maintained as per OSHA 10. Records and documents are maintained as per the organizational policy |
| 1. .Carry out conditioning operations | * 1. ***conditioning, equipment and machines*** are identified according to job specifications   2. Conditioning equipment and ***machines parameters*** are Set/adjusted as per job specifications.   3. Type/ function of the shoe is determined according to job specifications.   4. Conditioning operations are carried out according to job specifications   5. Written instructions are observed as per the job requirements   6. Legal requirements, standards, procedures and regulations are observed as per professional codes.   7. ***workplace practices*** are maintained as per OSHA   8. Records and documents are maintained as per the organizational policy |
| 1. Carry out shoe lasting operations | 1. ***Lasting method*** is determined according to job specifications 2. shoe lasting tools, machines and equipment are identified as per organizational infrastructure. 3. Lasting tools, equipment and ***machines parameters*** are Set/adjusted as per job specifications. 4. ***Lasting operations*** are carried out according to job specifications. 5. Written instructions are observed as per the job requirements 6. Legal requirements, standards, procedures and regulations are observed as per professional codes. 7. ***workplace practices*** are maintained as per OSHA 8. Records and documents are maintained as per the organizational policy |
| 1. Perform sole attaching operations | 1. Shoe attaching methods are identified according to the type of shoe 2. ***Shoe construction tools, equipment and machines*** are identified according to job specifications 3. sole attaching, tools, equipment and ***machines parameters*** are Set/adjusted as per job specifications. 4. Sole attachment method is determined according to job requirement 5. Shoe is heat set according to materials used 6. ***Sole attaching operations*** are carried outaccording to method of construction 7. Footwear finishing and shoe room operations are carried out as per job description 8. Written instructions are observed as per the job requirements 9. Legal requirements, standards, procedures and regulations are observed as per professional codes. 10. ***workplace practices*** are maintained as per OSHA 11. Records and documents are maintained as per the organizational policy |

**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. 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 * Boot * 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 |
| 1. Set up and operation of machine/s may include but are not limited to: | * Set up machines * Adjustment * operation of machines |
| 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 |
| 1. Lasting method may include but are not limited to | * Flat lasting * Outflanged * Vertical lasting * String lasting |
| 1. Lasting operation may include but are not limited to s | * Upper conditioning * Toe and puff moulding * Lasting * Heat setting |
| 1. Machines parameters may include but are not limited to | * Setting and adjustment * Routine maintenance |
| 1. Sole attaching operations may include but are not limited to | * Bottom and sole roughing * Adhesive application * Heat activation * Sole setting and attachment |

**REQUIRED SKILLS AND KNOWLEDGE**

**Required Skills**

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

* Accuracy
* Neatness
* 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
* Use of PPE
* Machine operation and adjustment
* Familiarity with upper and lining component parts
* Application of adhesives
* Trimming
* Adjusting and setting procedures
* Communicating and interacting skills
* Interpreting work ticket

**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 workshop mathematics
* Safe work practices
* Machine’s parts and function and adjustment
* Tools equipment and machines.
* Adhesives and auxiliaries.
* Familiarity with upper and lining component parts
* 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 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. Demonstrated knowledge of footwear production practices.   2. Terminology, materials, tools and equipment   3. Demonstrated knowledge of handling, use and care required for footwear tools, equipment and machines   4. Demonstrated knowledge of parts and style of footwear   5. Demonstrated ability to identify, select and use of tool, equipment and machines   6. Demonstrated ability to Set up and operate footwear machine/s   7. Demonstrated knowledge of materials for footwear production operations   8. Demonstrated ability to contribute to a productive work environment and meet production target   9. Demonstrated ability to identify and address problems at the work place   10. Demonstrated knowledge of handling, use and care required for footwear materials.   11. Demonstrate ability to identify physical properties and defects on footwear materials   12. Demonstrate ability to contribute to a productive work environment and meet production targets   13. Demonstrate ability to identify and address problems at the work place  1. Determined job requirement 2. Determined method of shoe construction 3. Identified shoe construction tools, machines and equipment 4. Assembled shoe upper, bottom components and ‘last plant’ 5. Carried out conditioning operations 6. Carried out shoe lasting operations 7. Performed sole attaching operations 8. Carried out footwear finishing operations 9. Carried out shoe room operations |
| 2.Resource Implications | The following resources must be provided:  2.1 Access to relevant workplace where assessment can take place  2.2 Appropriately simulated environment where assessment can take place.  2.3 Resources relevant to the proposed activity or tasks. |
| 3.Methods of Assessment | Competency may be assessed through:   1. Written/Oral questioning 2. Observation of work activities 3. Third-party report 4. Portfolio assessment 5. Projects 6. Tests 7. Practical |
| 4.Context of Assessment | The competency may be assessed:  4.1 workplace  4.2 Simulated workplace |
| 5.Guidance information for assessment | Holistic assessment with other units relevant to the industry subsector, workplace and job roles is recommended. |