TRAINING REGULATIONS

FOOTWEAR MAKING NC II

FOOTWEAR AND LEATHERGOODS SECTOR

TECHNICAL EDUCATION AND SKILLS DEVELOPMENT AUTHORITY
East Service Road, South Superhighway, Taguig City, Metro Manila

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FOOTWEAR MAKING NC II

TRAINING REGULATIONS FOR
FOOTWEAR MAKING NC II

SECTION 1. FOOTWEAR MAKING NC II QUALIFICATION

The FOOTWEAR MAKING NC II Qualification consists of competencies that a person must achieve to enable him/her to prepare/assemble upper components, prepare bottom components of shoes, and perform lasting and finishing operation.

This Qualification is packaged from the competency map of the Footwear Industry (Footwear Manufacturing sector) as shown in Annex A.

The Units of Competency comprising this Qualification include the following:

Code No.	BASIC COMPETENCIES
500311105	Participate in Workplace Communication
500311106	Work in Team Environment
500311107	Practice Career Professionalism
500311108	Practice Occupational Health and Safety Procedures

Code No.	COMMON COMPETENCIES
FWR744201	Apply footwear production practices and principles
FWR744203	Carry out measurements and calculations
FWR744204	Use and care of hand and power tools
FWR744205	Set-up and operate machines
FWR744206	Perform basic maintenance
FWR744208	Apply quality standards

Code No.	CORE COMPETENCIES
FWR744312	Check cut upper and lining components
FWR744313	Perform blocking/crimping
FWR744314	Perform skiving operations
FWR744315	Perform upper leather splitting operation
FWR744316	Perform machine perforating and gimping operation
FWR744317	Perform folding operation
FWR744318	Perform stitching operation on upper and/or lining components
FWR744319	Perform hand stitching operation
FWR744310	Prepare uppers for hand lasting
FWR744311	Perform basic hand lasting
FWR744309	Attach insole by machine
FWR744307	Perform toe-puff and stiffener activation
FWR744320	Perform basic machine lasting
FWR744308	Perform chilling operation

FWR744321	Perform pre-bonding operations
FWR744322	Perform bonding operations
FWR744323	Perform heel attaching operations
FWR744324	Perform polishing operation
FWR744325	Perform sock attachment and cleaning operation
FWR744326	Perform quality checking, repairing and packaging of de-lasted shoes

A person who has achieved this Qualification is competent to be:

- Footwear Maker
- Shoemaker

SECTION 2 COMPETENCY STANDARDS

This section gives the details of the contents of the basic, common and core units of competency required in FOOTWEAR MAKING NC II.

BASIC COMPETENCIES

UNIT OF COMPETENCY : PARTICIPATE IN WORKPLACE COMMUNICATION

UNIT CODE : 500311105

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes required to gather, interpret and convey information in response to workplace requirements.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Obtain and convey workplace information	1.1 Specific and relevant information is accessed from ***appropriate sources*** 1.2 Effective questioning , active listening and speaking skills are used to gather and convey information 1.3 Appropriate ***medium*** is used to transfer information and ideas 1.4 Appropriate non- verbal communication is used 1.5 Appropriate lines of communication with supervisors and colleagues are identified and followed 1.6 Defined workplace procedures for the location and ***storage*** of information are used 1.7 Personal interaction is carried out clearly and concisely
2. Participate in workplace meetings and discussions	2.1 Team meetings are attended on time 2.2 Own opinions are clearly expressed and those of others are listened to without interruption 2.3 Meeting inputs are consistent with the meeting purpose and established ***protocols*** 2.4 ***Workplace interactions*** are conducted in a courteous manner 2.5 Questions about simple routine workplace procedures & maters concerning working conditions of employment are asked and responded to 2.6 Meetings outcomes are interpreted and implemented
3. Complete relevant work related documents	3.1 Range of ***forms*** relating to conditions of employment are completed accurately and legibly 3.2 Workplace data is recorded on standard workplace forms and documents 3.3 Basic mathematical processes are used for routine calculations 3.4 Errors in recording information on forms/ documents are identified and properly acted upon 3.5 Reporting requirements to supervisor are completed

	according to organizational guidelines

RANGE OF VARIABLES

VARIABLE	RANGE
1. Appropriate sources	1.1. Team members 1.2. Suppliers 1.3. Trade personnel 1.4. Local government 1.5. Industry bodies
2. Medium	2.1. Memorandum 2.2. Circular 2.3. Notice 2.4. Information discussion 2.5. Follow-up or verbal instructions 2.6. Face to face communication
3. Storage	3.1. Manual filing system 3.2. Computer-based filing system
4. Forms	4.1. Personnel forms, telephone message forms, safety reports
5. Workplace interactions	5.1. Face to face 5.2. Telephone 5.3. Electronic and two way radio 5.4. Written including electronic, memos, instruction and forms, non-verbal including gestures, signals, signs and diagrams
6. Protocols	6.1. Observing meeting 6.2. Compliance with meeting decisions 6.3. Obeying meeting instructions

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1. Prepared written communication following standard format of the organization 1.2. Accessed information using communication equipment 1.3. Made use of relevant terms as an aid to transfer information effectively 1.4. Conveyed information effectively adopting the formal or informal communication
2. Underpinning knowledge and attitudes	2.1. Effective communication 2.2. Different modes of communication 2.3. Written communication 2.4. Organizational policies 2.5. Communication procedures and systems 2.6. Technology relevant to the enterprise and the individual's work responsibilities
3. Underpinning skills	3.1. Follow simple spoken language 3.2. Perform routine workplace duties following simple written notices 3.3. Participate in workplace meetings and discussions 3.4. Complete work related documents 3.5. Estimate, calculate and record routine workplace measures 3.6. Basic mathematical processes of addition, subtraction, division and multiplication 3.7. Ability to relate to people of social range in the workplace 3.8. Gather and provide information in response to workplace Requirements
4. Resource implications	4.1. Fax machine 4.2. Telephone 4.3. Writing materials 4.4. Internet
5. Methods of assessment	5.1. Direct Observation 5.2. Oral interview and written test
6. Context for assessment	6.1. Competency may be assessed individually in the actual workplace or through accredited institution

UNIT OF COMPETENCY: WORK IN TEAM ENVIRONMENT

UNIT CODE : 500311106

UNIT DESCRIPTOR : This unit covers the skills, knowledge and attitudes to identify role and responsibility as a member of a team.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Describe team role and scope	1.1. The ***role and objective of the team*** is identified from available ***sources of information*** 1.2. Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources
2. Identify own role and responsibility within team	2.1. Individual role and responsibilities within the team environment are identified 2.2. Roles and responsibility of other team members are identified and recognized 2.3. Reporting relationships within team and external to team are identified
3. Work as a team member	3.1. Effective and appropriate forms of communications used and interactions undertaken with team members who contribute to known team activities and objectives 3.2. Effective and appropriate contributions made to complement team activities and objectives, based on individual skills and competencies and ***workplace context*** 3.3. Observed protocols in reporting using standard operating procedures 3.4. Contribute to the development of team work plans based on an understanding of team's role and objectives and individual competencies of the members.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Role and objective of team	1.1. Work activities in a team environment with enterprise or specific sector 1.2. Limited discretion, initiative and judgement maybe demonstrated on the job, either individually or in a team environment
2. Sources of information	2.1. Standard operating and/or other workplace procedures 2.2. Job procedures 2.3. Machine/equipment manufacturer's specifications and instructions 2.4. Organizational or external personnel 2.5. Client/supplier instructions 2.6. Quality standards 2.7. OHS and environmental standards
3. Workplace context	3.1. Work procedures and practices 3.2. Conditions of work environments 3.3. Legislation and industrial agreements 3.4. Standard work practice including the storage, safe handling and disposal of chemicals 3.5. Safety, environmental, housekeeping and quality guidelines

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1. Operated in a team to complete workplace activity 1.2. Worked effectively with others 1.3. Conveyed information in written or oral form 1.4. Selected and used appropriate workplace language 1.5. Followed designated work plan for the job 1.6. Reported outcomes
2. Underpinning knowledge and attitude	2.1. Communication process 2.2. Team structure 2.3. Team roles 2.4. Group planning and decision making
3. Underpinning skills	3.1. Communicate appropriately, consistent with the culture of the workplace
4. Resource implications	The following resources **MUST** be provided: 4.1. Access to relevant workplace or appropriately simulated environment where assessment can take place 4.2. Materials relevant to the proposed activity or tasks
5. Methods of assessment	Competency may be assessed through: 5.1. Observation of the individual member in relation to the work activities of the group 5.2. Observation of simulation and or role play involving the participation of individual member to the attainment of organizational goal 5.3. Case studies and scenarios as a basis for discussion of issues and strategies in teamwork
6. Context for assessment	6.1. Competency may be assessed in workplace or in a simulated workplace setting 6.2. Assessment shall be observed while task are being undertaken whether individually or in group

UNIT OF COMPETENCY: PRACTICE CAREER PROFESSIONALISM

UNIT CODE : 500311107

UNIT DESCRIPTOR : This unit covers the knowledge, skills and attitudes in promoting career growth and advancement.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Integrate personal objectives with organizational goals	1.1 Personal growth and work plans are pursued towards improving the qualifications set for the profession 1.2 Intra- and interpersonal relationships ~~is~~ are maintained in the course of managing oneself based on performance ***evaluation*** 1.3 Commitment to the organization and its goal is demonstrated in the performance of duties
2. Set and meet work priorities	2.1 Competing demands are prioritized to achieve personal, team and organizational goals and objectives. 2.2 ***Resources*** are utilized efficiently and effectively to manage work priorities and commitments 2.3 Practices along economic use and maintenance of equipment and facilities are followed as per established procedures
3 Maintain professional growth and development	3.1 ***Trainings and career opportunities*** are identified and availed of based on job requirements ~~3.2~~ ***Recognitions*** are sought/received and demonstrated as proof of career advancement 3.3 ***Licenses and/or certifications*** relevant to job and career are obtained and renewed

RANGE OF VARIABLES

VARIABLE	RANGE
1. Evaluation	1.1 Performance Appraisal 1.2 Psychological Profile 1.3 Aptitude Tests
2. Resources	2.1 Human 2.2 Financial 2.3 Technology 2.3.1 Hardware 2.3.2 Software
3. Trainings and career opportunities	3.1 Participation in training programs 3.1.1 Technical 3.1.2 Supervisory 3.1.3 Managerial 3.1.4 Continuing Education 3.2 Serving as Resource Persons in conferences and workshops
4. Recognitions	4.1 Recommendations 4.2 Citations 4.3 Certificate of Appreciation 4.4 Commendations 4.5 Awards 4.6 Tangible and Intangible Rewards
5. Licenses and/or certifications	5.1 National Certificates 5.2 Certificate of Competency 5.3 Support Level Licenses 5.4 Professional Licenses

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Attained job targets within key result areas (KRAs) 1.2 Maintained intra - and interpersonal relationship in the course of managing oneself based on performance evaluation 1.3 Completed trainings and career opportunities which are based on the requirements of the industries 1.4 Acquired and maintained licenses and/or certifications according to the requirement of the qualification
2. Underpinning knowledge and attitudes	2.1 Work values and ethics (Code of Conduct, Code of Ethics, etc.) 2.2 Company policies 2.3 Company operations, procedures and standards 2.4 Fundamental rights at work including gender sensitivity 2.5 Personal hygiene practices
3. Underpinning skills	3.1 Appropriate practice of personal hygiene 3.2 Intra and Interpersonal skills 3.3 Communication skills
4. Resource implications	The following resources **MUST** be provided: 4.1 Workplace or assessment location 4.2 Case studies/scenarios
5. Methods of assessment	Competency may be assessed through: 5.1 Portfolio Assessment 5.2 Interview 5.3 Simulation/Role-plays 5.4 Observation 5.5 Third Party Reports 5.6 Exams and Tests
6. Context for assessment	6.1 Competency may be assessed in the work place or in a simulated work place setting

UNIT OF COMPETENCY: **PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES**

UNIT CODE : **500311108**

UNIT DESCRIPTOR : This unit covers the outcomes required to comply with regulatory and organizational requirements for occupational health and safety.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Identify hazards and risks	1.1 ***Safety regulations*** and workplace safety and hazard control practices and procedures are clarified and explained based on organization procedures 1.2 ***Hazards/risks*** in the workplace and their corresponding indicators are identified to minimize or eliminate risk to co-workers, workplace and environment in accordance with organization procedures 1.3 ***Contingency measures*** during workplace accidents, fire and other emergencies are recognized and established in accordance with organization procedures
2. Evaluate hazards and risks	2.1 Terms of maximum tolerable limits which when exceeded will result in harm or damage are identified based on threshold limit values (TLV) 2.2 Effects of the hazards are determined 2.3 OHS issues and/or concerns and identified safety hazards are reported to designated personnel in accordance with workplace requirements and relevant workplace OHS legislation

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
3. Control hazards and risks	3.1 Occupational Health and Safety (OHS) procedures for controlling hazards/risks in workplace are consistently followed 3.2 Procedures for dealing with workplace accidents, fire and emergencies are followed in accordance with organization OHS policies 3.3 ***Personal protective equipment (PPE)*** is correctly used in accordance with organization OHS procedures and practices 3.4 Appropriate assistance is provided in the event of a workplace emergency in accordance with established organization protocol
4. Maintain OHS awareness	4.1 ***Emergency-related drills and trainings*** are participated in as per established organization guidelines and procedures 4.2 ***OHS personal records*** are completed and updated in accordance with workplace requirements

RANGE OF VARIABLES

VARIABLE	RANGE
1. Safety regulations	May include but are not limited to: 1.1 Clean Air Act 1.2 Building code 1.3 National Electrical and Fire Safety Codes 1.4 Waste management statutes and rules 1.5 Philippine Occupational Safety and Health Standards 1.6 DOLE regulations on safety legal requirements 1.7 ECC regulations
2. Hazards/Risks	May include but are not limited to: 2.1 Physical hazards – impact, illumination, pressure, noise, 2.2 vibration, temperature, radiation 2.3 Biological hazards- bacteria, viruses, plants, parasites, 2.4 mites, molds, fungi, insects 2.5 Chemical hazards – dusts, fibers, mists, fumes, smoke, 2.6 gasses, vapors 2.7 Ergonomics 2.7.1 Psychological factors – over exertion/ excessive force, awkward/static positions, fatigue, direct pressure, varying metabolic cycles 2.7.2 Physiological factors – monotony, personal relationship, work out cycle
3. Contingency measures	May include but are not limited to: 3.1 Evacuation 3.2 Isolation 3.3 Decontamination 3.4 (Calling designed) emergency personnel
4. PPE	May include but are not limited to: 4.1 Mask 4.2 Gloves 4.3 Goggles 4.4 Hair Net/cap/bonnet 4.5 Face mask/shield 4.6 Ear muffs 4.7 Apron/Gown/coverall/jump suit 4.8 Anti-static suits

VARIABLE	RANGE
5. Emergency-related drills and training	5.1 Fire drill 5.2 Earthquake drill 5.3 Basic life support/CPR 5.4 First aid 5.5 Spillage control 5.6 Decontamination of chemical and toxic 5.7 Disaster preparedness/management
6 OHS personal records	6.1 Medical/Health records 6.2 Incident reports 6.3 Accident reports 6.4 OHS-related training completed

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Explained clearly established workplace safety and hazard control practices and procedures 1.2 Identified hazards/risks in the workplace and its corresponding indicators in accordance with company procedures 1.3 Recognized contingency measures during workplace accidents, fire and other emergencies 1.4 Identified terms of maximum tolerable limits based on threshold limit value- TLV. 1.5 Followed Occupational Health and Safety (OHS) procedures for controlling hazards/risks in workplace 1.6 Used Personal Protective Equipment (PPE) in accordance with company OHS procedures and practices 1.7 Completed and updated OHS personal records in accordance with workplace requirements
2. Underpinning knowledge and attitude	2.1 OHS procedures and practices and regulations 2.2 PPE types and uses 2.3 Personal hygiene practices 2.4 Hazards/risks identification and control 2.5 Threshold Limit Value -TLV 2.6 OHS indicators 2.7 Organization safety and health protocol 2.8 Safety consciousness 2.9 Health consciousness
3. Underpinning skills	3.1 Practice of personal hygiene 3.2 Hazards/risks identification and control skills 3.3 Interpersonal skills 3.4 Communication skills
4 Resource implications	The following resources must be provided: 4.1 Workplace or assessment location 4.2 OHS personal records 4.3 PPE 4.4 Health records
5 Methods of assessment	Competency may be assessed through: 5.1 Portfolio Assessment 5.2 Interview 5.3 Case Study/Situation
6 Context for assessment	6.1 Competency may be assessed in the work place or in a simulated work place setting

COMMON COMPETENCIES

UNIT OF COMPETENCY	**APPLY FOOTWEAR PRODUCTION PRACTICES AND PRINCIPLES**
UNIT CODE	**FWR744201**
UNIT DESCRIPTOR	This unit covers the basic knowledge, skills and attitudes that individuals need to work more effectively in the footwear production industry. This unit is required for all qualifications in footwear production.

ELEMENT	PERFORMANCE CRITERIA **Italicize terms** are elaborated in the Range of Variables
1. Apply knowledge of footwear products and systems in the workplace	1.1 ***Parts and styles of footwear*** are identified, recognized and followed during production. 1.2 ***Materials*** are selected and used in accordance with work order and characteristics of the materials 1.3 ***Tools and machines*** are identified and selected/specified based on work and safety requirements and manufacturer's recommendations 1.4 Quality of work is consistently maintained at optimum level
2. Demonstrate productive work practices	2.1 Work load is prioritized to meet job orders and delivery dates 2.2 Wastage of production material and time is minimized through consistent practice of quality procedures 2.3 Responsibilities and duties are performed in a positive manner to promote cooperation within the workplace and meet production target deliveries 2.4 Problems, conflicts or contingencies are recognized and addressed and/or referred to ***appropriate person(s)***

RANGE OF VARIABLES

VARIABLE	RANGE
1. Parts and styles of footwear	1.1 Parts of footwear are: 1.1.1 Upper components 1.1.2 Lining and interlining components 1.1.3 Bottom components 1.2 Styles of footwear: 1.2.1 Derby 1.2.2 Oxford 1.2.3 Monk 1.2.4 Court shoe 1.2.5 Trainer 1.2.6 Boot 1.2.7 Moccasin 1.2.8 Slip-on
2. Materials	2.1 Leather 2.2 Synthetic 2.3 Fabric 2.4 Reinforcement materials 2.5 Grindery
3. Tools and machines	3.1 Upper making tools 3.2 Lasting tools 3.3 Stitching machines 3.4 Lasting machines
4. Appropriate person(s)	4.1 Team leader/Supervisor 4.2 Production manager 4.3 Shop steward

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Demonstrated knowledge of footwear productions, terminology, materials, tools and equipment 1.2 Demonstrated knowledge of parts and styles of footwear and current design trends 1.3 Demonstrated ability to select/specify appropriate tool, equipment and materials for one or more production operations 1.4 Demonstrated ability to contribute to a productive work environment and meet production target 1.5 Demonstrated ability to identify and address problems at the work place
2. Underpinning knowledge	2.1 Footwear production terminology 2.2 Footwear production materials 2.3 Key processes or operations in footwear production 2.4 Types and design of footwear 2.5 Footwear quality standards 2.6 Occupational health and safety 2.7 Basic shop mathematics
3. Underpinning skills	3.1 Communication skills – communicating and interacting with co-workers 3.2 Operation and setting of common footwear production materials, tools and equipment 3.3 Literacy skills – reading and interpreting labels, description, work ticket and relevant workplace documents 3.4 Numeracy skills – estimating time, arithmetic operations, measurement skills
4. Resource implication	The following resources MUST be provided: 4.1 Workplace environment 4.2 Workplace documentation, e.g., company policies, procedures
5. Methods of assessment	Competency MUST be assessed through: 5.1 Written/Oral questioning 5.2 Observation of work activities 5.3 Third-party report 5.4 Portfolio assessment
6. Context of assessment	6.1 Assessment should be conducted individually in the workplace or simulated workplace environment and in any TESDA accredited assessment center/s

UNIT OF COMPETENCY	**CARRY OUT MEASUREMENTS & CALCULATIONS**
UNIT CODE	**FWR744203**
UNIT DESCRIPTOR	This unit covers the knowledge and skills required in obtaining accurate pattern scale area, calculating/ estimating the materials, requirements and costs

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Obtain measurements	1.1 Measurements are obtained according to job instructions using ***measuring devices*** 1.2 ***System of measurement*** to be used is identified.
2. Perform simple calculations	2.1 ***Simple calculations*** carried out based on the requirements of the situation 2.2 Correctness of calculations verified based on production requirements
3. Estimate approximate quantities	3.1 Measurements or quantities estimated on job requirements 3.2 Measurements identified/recorded without error 3.3 Quantities of materials suitable for work undertaken are calculated and recorded according to job instructions

RANGE OF VARIABLES

VARIABLE	RANGE
1. Measuring device	1.1 Tape measure 1.2 Ruler 1.3 Meter stick 1.4 Thickness Gauge 1.5 Divider
2. System of measurement	2.1 English system 2.2 Metric system
3. Simple Calculations (Four Fundamental Operations)	3.1 Addition 3.2 Subtraction 3.3 Multiplication 3.4 Division

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Demonstrated effective use of measuring devices 1.2 Took and recorded accurate measurements 1.3 Performed simple calculations according to specifications 1.4 Estimated required quantities of materials
2. Underpinning knowledge and attitudes	2.1 Drawings and specifications 2.2 Materials relevant to the construction processes 2.3 Basic operation in measurement and calculations
3. Underpinning skills	3.1 Reading and interpreting work ticket 3.2 Measuring and calculating manually 3.3 Recording measurement 3.4 Operating electronic calculating devices 3.5 Communicating effectively
4. Resource implications	The following resources MUST be provided: 4.1 Access to relevant workplace or appropriately simulated environment where assessment can take place 4.2 Materials relevant to the proposed activity or task
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation of work activities related to pattern scaling and estimating costs relevant to footwear construction /manufacturing.
6. Context for assessment	6.1 Competency assessment may occur in workplace or any appropriately simulated environment and in any TESDA accredited assessment center/s

UNIT OF COMPETENCY	**USE AND CARE FOR HAND AND POWER TOOLS**
UNIT CODE	**FWR744204**
UNIT DESCRIPTOR	This unit covers the knowledge, skills and attitudes required in using/handling and maintaining of hand and power tools

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Select appropriate tools for work	1.1. Work requirements are interpreted in accordance with the instructions of the supervising engineer 1.2. Appropriate ***hand and power tools*** are selected for the tasks required 1.3. Selected hand and power tools are checked for their serviceability 1.4. Defective tools are identified and reported and appropriate action is taken for their repair or replacement in accordance with established procedures 1.5. Instruction for the use of the tools are accessed and interpreted if required
2. Use hand and power tools	2.1. Work area, work pieces and tools are prepared for the required tasks in accordance with engineer's instructions and established practice 2.2. Other personnel in the work area are made aware of the work being carried out as required by safety management procedures 2.3. Where relevant, work is marked out using appropriate marking out tools in accordance with established procedures 2.4. Hand and power tools are used for the tasks as directed and in accordance with established procedures and manufacturer's instructions 2.5. Desired outcomes for the work are achieved to job specifications, including finish, tension, size, shape etc. as required

3. Follow safety and hazard control procedures	3.1. All required safety precautions, procedures and regulations are followed when using hand and power tools 3.2. ***Operational hazards*** are identified when using hand and power tools and action is taken in conjunction with others to minimize or eliminate risk to self, other personnel, the vessel and the environment
4. Care for hand and power tools	4.1. Tools are used only for their intended purposes in accordance with manufacturer's instructions and established procedures 4.2. ***Care of tools*** are properly done in accordance with manufacturer's instruction and established procedures 4.3. Tools are adjusted, tightened and or lubricated in accordance with manufacturer's instructions and established procedures 4.4. Grinding wheels are dressed and made true in accordance with manufacturer's instructions and established procedures 4.5. Defective or worn tools and tool components are identified, marked as required and reported and appropriate action is taken for the repair or replacement in accordance with established procedures

RANGE OF VARIABLES

VARIABLE	RANGE
1. Hand tools	1.1 Maintenance: 1.1.1 Spanner 1.1.2 Screw drivers (Philips) 1.1.3 Allen keys 1.1.4 Plier 1.1.5 Nylon hammer 1.1.6 Dressing tool 1.2 Production 1.2.1 Snips 1.2.2 Scissors 1.2.3 Pincers 1.2.4 Files/rasp 1.2.5 Folding hammer 1.2.6 Tack remover
2. Power tools:	2.1 Puncher 2.2 Spreader 2.3 Beta 2.4 Cutting/clicking knife
3. Operational hazards when using and caring for hand and power tools include	3.1 Sharp blades 3.2 Moving and rotating blades and equipment 3.3 Sparks in areas where flammable and explosive substances are stored 3.4 Using tools beyond safe working limits 3.5 Poor housekeeping procedures 3.6 Non-compliance with safe working procedures
4. Care of tools includes	4.1 Cleaning 4.2 Sharpening 4.3 Storing 4.4 Using tools in accordance with manufacturer's instruction and established procedures 4.5 Using tools only for their intended purpose

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate : 1.1. Selected appropriate hand and power tools to complete assigned tasks 1.2. Used hand and power tools in accordance with established procedures and manufacturer's instructions 1.3. Cared for hand and power tools in accordance with established procedures and manufacturer's instructions 1.4. Ensure the exercise of all required safety, environmental and hazard control precautions and procedures when using hand and power tools in accordance to complete assigned tasks 1.5. Take appropriate action if a hand or power tools is found to be defective or worn.
2. Underpinning knowledge	2.1. Knowledge on the types, names and identifying features of various hand and power tools required for work tasks that may be carried out by ratings 2.2. Ability to read and interpret work specifications and drawings 2.3. Ability to mark out work to specifications and to measure and check the quality of finished work including the correct use of hand and power tools
3. Underpinning skills	3.1. Observing procedures for the use and care of hand or power tools required for work tasks 3.2. Environmental protection measures when carrying out basic production tasks
4. Resource implications	The following resources MUST be provided : 4.1. Workplace 4.2. Tools and equipment appropriate in maintaining housekeeping activities 4.3. Materials relevant to the proposed activity and tasks
5. Method of assessment	Competency MUST be assessed through: 5.1. Direct observation and application to tasks and questions related to underpinning knowledge 5.2. Under general guidance, checking various stages of the process and at the completion of the activity against performance criteria and specifications While task are being undertaken
6. Context for assessment	6.1. Competency may be assessed individually in the workplace or in simulated workplace environment and in any TESDA accredited assessment center/s

UNIT OF COMPETENCY	**SET UP AND OPERATE MACHINE/S**
UNIT CODE	**FWR744205**
UNIT DESCRIPTOR	This unit covers the knowledge and skills required to set up, operate and sample run machines for footwear manufacturing

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Set up / prepare machines	1.1 Product specifications are interpreted in relation to machine setting requirements 1.2 Type of machines to be set up are identified in accordance with the job requirement 1.3 ***Machines for footwear manufacturing*** are set in accordance with product specifications, machine manufacturer's instructions and company procedures
2. Conduct sample run	2.1 Materials to be used for sampling is obtained 2.2 Machine is operated in accordance with manufacturer's and company instructions to produce a specified sample
3. Test machine output	3.1 ***Machine outputs*** are tested or organized in accordance with company procedures to ensure required standards of quality are met
4. Re-adjust machine setting to meet requirements	4.1 Test results are interpreted to determine ***machine adjustment*** requirements 4.2 Adjustment changes are assessed in accordance with product and machine specifications 4.3 Appropriate production personnel are informed of the availability of the newly set up machine in accordance with workplace procedures
5. Maintain records	5.1 Records are maintained and reports prepared in accordance with the company procedures

RANGE OF VARIABLES

VARIABLE	RANGE
1. Machines for footwear manufacturing	1.1 Sewing machines (flatbed, post-bed, cylinder arm, zigzag, etc.) 1.2 Lasting machines (toe lasting machine, seat and side lasting machine, mulling machine, chiller, heat setting machine, sole attaching machine, etc.) 1.3 Finishing machine (buffing machine, etc.)
2. Machine output	2.1 Product sample 2.2 Service samples 2.3 Machine operation
3. Machine adjustments	3.1 Air Pressure 3.2 Temperature 3.3 Speed 3.4 Time delay 3.5 Motor and Needle timing (for sewing machines)

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Interpreted product specifications in relation to machine setting requirements 1.2 Obtained appropriate materials to be used for sample or test run 1.3 Operated machines with ease and confidence 1.4 Tested or organized sample run to ensure quality standards are met 1.5 Interpreted test results 1.6 Assessed adjustment changes 1.7 Maintained records and prepared reports
2. Underpinning knowledge	2.1 Setting up and adjustment requirements for the range of machines and equipment used in the company 2.2 Quality requirements 2.3 Machine manufacturer's specifications 2.4 Safety and environmental aspects of relevant company activities 2.5 Workplace procedures and reporting processes 2.6 Relevant OH&S legislation and codes of practice
3. Underpinning skills	3.1 Setting and operating footwear manufacturing machines 3.2 Testing and analyzing samples for test run 3.3 Applying all relevant safety practices when working in the industry 3.4 Communicating effectively with individuals, work groups and supervisors 3.5 Maintaining records and document and transfer information 3.6 Interpreting and carrying out established procedures
4. Resource implications	The following resources MUST be provided: 4.1 Access to relevant workplace or appropriately simulated environment where assessment can take place 4.2 Materials relevant to the proposed activity or task
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation of work activities related to footwear construction and manufacturing processes.
6. Context of assessment	6.1 Competency assessment may occur in workplace or any appropriately simulated environment and in any TESDA accredited assessment center/s

UNIT OF COMPETENCY	**PERFORM BASIC MAINTENANCE**
UNIT CODE	**FWR744206**
UNIT DESCRIPTOR	This unit covers the knowledge and skills requires in performing minor maintenance of the machines and equipment for footwear manufacturing

ELEMENT	PERFORMANCE CRITERIA **Italicized terms** are elaborated in the Range of Variables
1. Perform machine adjustments	1.1 ***Machine adjustments*** are done in accordance with manufacturer's and enterprise requirements 1.2 ***Problem with machine*** is identified and reported in accordance with company procedures
2. Clean and operate machine	2.1 Machine is cleaned and lubricated in accordance with workplace requirements and manufacturer's cleaning and lubricating instructions 2.2 Machine operation is monitored to ensure correct procedures are carried out and work meets quality standards
3. Check machine operation	3.1 Machine is checked to ensure correct operation 3.2 Problems encountered and similar observations are documented and referred to supervisor or appropriate personnel

RANGE OF VARIABLES

VARIABLE	RANGE
1. Machine adjustments	1.1 Air Pressure 1.2 Temperature 1.3 Speed 1.4 Time delay 1.5 Motor and Needle timing (for sewing machines)
2. Problem with machines	2.1 Minor Faults: 2.1.1 Machine control 2.1.2 Broken parts (needles, belts, screws, etc.) 2.2 Major Faults: 2.2.1 Broken body parts (motors, circuit boards, valves, pipes, etc.) 2.2.2 Defective power supply 2.2.3 Unavailability of replacements

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Started and stopped machine 1.2 Monitored machine operations 1.3 Identified and reported machine problems 1.4 Identified and corrected minor machine and associated equipment/tools faults 1.5 Identified and documented major machine or product faults 1.6 Recorded and documented machine maintenance 1.7 Cleaned and lubricated machine
2. Underpinning knowledge	2.1 Procedures and guidelines for safe operation of machines 2.2 Typical fault conditions and related fault finding procedures 2.3 Basic machine maintenance and repair techniques 2.4 Safety policies and procedures 2.5 Quality standard procedures 2.6 Workplace recording and reporting procedures
3. Underpinning skills	3.1 Assessing operating performance of machine 3.2 Starting and stopping machines according to specifications 3.3 Monitoring machine operations 3.4 Recognizing fault conditions 3.5 Rectifying minor machine faults or problems
4. Resource implications	The following resources MUST be provided: 4.1 Access to relevant workplace or appropriately simulated environment where assessment can take place 4.2 Materials relevant to the proposed activity or task
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation of work activities related to footwear constructions and manufacturing processes.
6. Context for assessment	6.1 Competency assessment may occur in workplace or any appropriately simulated environment and in any TESDA accredited assessment center/s

UNIT OF COMPETENCY	**APPLY QUALITY STANDARDS**
UNIT CODE	**FWR744208**
UNIT DESCRIPTOR	This unit covers the knowledge and skills required in applying quality standards to work operations in the industry.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Assess own work	1.1 Completed work is checked against workplace standards relevant to the operations being undertaken 1.2 An understanding is demonstrated on how the work activities and completed work relate to the next production process and to the final appearance of the product 1.3 Faulty pieces or final products are identified and isolated in accordance with company policies and procedures 1.4 Faults and any identified causes are recorded and reported in accordance with workplace procedures
2. Assess quality of received component parts	2.1 Received materials, component parts or final product are ***quality checked*** against workplace standards and specifications 2.2 Causes of any identified faults are identified and corrective actions are taken in accordance with workplace procedures
3. Record information	3.1 Basic information on the quality of received components are recorded in accordance with workplace procedures
4. Study causes of quality deviations	4.1 Causes of deviations from final products are investigated and reported in accordance with workplace procedures 4.2 Suitable preventive action is recommended based on workplace ***quality standards*** and identified causes of deviation from specified quality standards of materials or final product 4.3 Quality parameters of work are achieved.

RANGE OF VARIABLES

VARIABLES	RANGE
1. Quality check	1.1 Visual inspection 1.2 Physical measurements 1.3 Check against patterns
2. Quality standards related to:	2.1 Materials 2.2 Component parts 2.3 Final product 2.4 Production processes
3. Quality parameters	3.1 Finish 3.2 Fit 3.3 Size 3.4 Durability 3.5 Product variations 3.6 Materials 3.7 Alignment 3.8 Color 3.9 Free from damage and imperfections

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Checked completed work continuously against workplace standard 1.2 Identified and isolated faulty pieces or final product 1.3 Checked received materials, component parts or final product against workplace standards 1.4 Identified and applied corrective actions on the causes of identified faults 1.5 Measured materials, component parts or products 1.6 Recorded basic information regarding quality performance 1.7 Investigated causes of deviations of materials against standard 1.8 Recommended suitable preventive actions
2. Underpinning knowledge	2.1 Relevant quality standards, policies and procedures 2.2 Characteristics of materials used 2.3 Safety environment aspects of production processes 2.4 Relevant measurement techniques and quality checking procedures 2.5 Workplace procedures 2.6 Reporting procedures
3. Underpinning skills	3.1 Interpreting work instructions, specifications, standards and patterns appropriate to the assessee's work 3.2 Carrying out relevant visual inspections of materials, component parts and final products 3.3 Carrying out relevant physical measurements 3.4 Maintaining accurate work records in accordance with procedures 3.5 Meeting work specifications 3.6 Communicating effectively within defined workplace procedures
4. Resource implications	The following resources MUST be provided: 4.1 Access to relevant workplace or appropriately simulated environment where assessment can take place 4.2 Materials relevant to the proposed activity or task
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation of work activities related to footwear construction /manufacturing processes.
6. Context for assessment	6.1 Competency assessment may occur in workplace or any appropriately simulated environment and in any TESDA accredited assessment center/s

CORE COMPETENCIES

UNIT OF COMPETENCY: **CHECK CUT UPPER and LINING COMPONENTS**
UNIT CODE: **FWR744312**
UNIT DESCRIPTOR: This unit cover the knowledge, skills and attitude required in checking cut upper component. The qualities of cut upper components are in accordance with the standard set by the company.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Inspect received cut upper and lining components	1.1 ***Quality*** and quantity of received cut ***upper and lining components*** are assessed based on job specifications. 1.2 Components are checked for tightness and stretch from heel to toe as per standard operating procedures. 1.3 Quality of cut components is checked according to uniformity of shades, substance and type of materials. 1.4 Ensured that cut upper and lining components are free from ***major defects***
2. Segregate cut upper and lining components	2.1 Cut upper and lining components are classified according to sizes, uniformity of shades, substance and grain variations 2.2 Cut upper and lining components are paired according to shape and ***size*** 2.3 Defective cut upper and lining components are identified, returned/replaced and reported in accordance with company procedures
3. Bundle cut upper and lining components	3.1 Cut upper and lining components are piled and stacked according to sizes and pairs. 3.2 Stacked cut upper and lining components are bundled and recorded in accordance with company procedures 3.3 Production report sheets are prepared , recorded and submitted as per company procedures

RANGE OF VARIABLES

VARIABLE	RANGE
1. Upper and lining components	1.1 Vamp 1.2 Toe cap 1.3 Wing cap 1.4 Quarters 1.5 Counter 1.6 Tongue 1.7 Back strap 1.8 Eyelet Facing/Eye stay 1.9 Straps 1.10 Collar 1.11 Heel cover 1.12 Vamp lining 1.13 Quarter lining 1.14 Heel grip 1.15 Sock lining
2. Quality	2.1 Finish 2.2 Color 2.3 Size 2.4 Material 2.5 Alignment
3. Major defects present in cut components	3.1 Leather: 3.1.1 vein marks 3.1.2 tick marks 3.1.3 looseness 3.1.4 flay cuts 3.1.5 scratches 3.1.6 putrefaction 3.1.7 wobble fly 3.1.8 barb wire marks 3.1.9 salt burns 3.1.10 ammonia burns 3.1.11 discoloration 3.1.12 brand marks 3.1.13 heavy hair follicles 3.1.14 heavy grain 3.1.15 growth marks 3.2 Man-made materials 3.2.1 Scratches 3.2.2 Stains 3.2.3 Hole

4. Sizes	4.1 French: 4.1.1 Men's size: 39 – 44 4.1.2 Ladies' size: 35 – 39 4.1.3 Children's size : 21 – 38 4.2 American 4.2.1 Men's size: 5 - 12 4.2.2 Ladies' size: 4 -9 4.2.3 Children's size : 11 - 6

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Assessed / checked the quality of received components 1.2 Identified, segregated and reported defective components 1.3 Bundled cut upper and lining components 1.4 Recorded information on production report sheet 1.5 Interpreted and followed instructions from work ticket
2. Underpinning knowledge and attitude	2.1 Safe work practices 2.2 Basic product knowledge 2.3 Sizing components 2.4 Types and characteristics of leather and man-made components 2.5 Footwear terms 2.6 Positive work values (Quality, cost and safety consciousness, attention to details, patience, perseverance, etc.)
3. Underpinning skills	3.1 Assessing leather quality and recognizing leather defects and variations in grain and color 3.2 Communicating and interacting skills 3.3 Interpreting work ticket 3.4 Determining direction of stretch and tightness of materials
4. Resource implications	The following resources MUST be provided: 4.1 Workplace with proper lighting and ventilation 4.2 Work ticket 4.3 Materials relevant to the activity
5. Methods of assessment	5.1 Competency must be assessed through direct observation / demonstration of candidate's application of knowledge to tasks and questioning related to underpinning knowledge
6. Context for assessment	6.1 Competency may be assessed individually in the actual workplace or simulated environment or in TESDA accredited assessment center

UNIT OF COMPETENCY: **PERFORM BLOCKING/CRIMPING OPERATION**
UNIT CODE: **FWR744313**
UNIT DESCRIPTOR: This unit covers the knowledge, skills and attitude required in performing blocking/crimping operation.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Prepare upper for blocking	1.1 Vamps are ***prepared*** in accordance with styles and designs. 1.2 Chalk powder is placed on the grain side of leather as per standard work procedures. 1.3 Ensured that prepared vamps are free from excess water.
2. Set up machine	2.1 Machine is set and adjusted according to manufacturer's manual. 2.2 ***Blade*** is selected and placed in the machine in accordance with shoe style or design. 2.3 Blocking plates are set according to required position.
3. Perform blocking	3.1 Blocking is performed in accordance with standard operating procedures. 3.2 Blocked vamps are inspected and segregated in accordance with company standard/design/style. 3.3 ***Damaged vamps*** are identified, reported and adjusted based on procedure
4. Perform trimming of vamps	4.1 Trimmed vamps are paired in accordance with shape and shades of materials. 4.2 Vamps are trimmed as per standard operating procedures.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Preparation of vamps	1.1 Laid face-to-face 1.2 Matched to its pair 1.3 Edges are leveled 1.4 Performed stitched markings
2. Blade	2.1 Components 2.1.1 Apron 2.1.2 Tongue 2.1.3 Plug 2.1.4 Full vamp 2.2 Design/Pattern 2.2.1 Whole cut 2.2.2 ¾ cut 2.2.3 Bellows tongue 2.3.1 Last
3. Damaged vamps	3.1 Creases 3.2 Grain crack 3.3 Loose grain 3.4 Burned vamps 3.5 Ripped vamps

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Prepared upper for blocking 1.2 Set up blocking machine 1.3 Performed blocking 1.4 Performed trimming of vamps 1.5 Applied quality in work areas
2. Underpinning knowledge and attitude	2.1 Parts and functions of blocking machine 2.2 Different leather types and finishes 2.3 Familiarity with the types of upper and lining components 2.4 5S 2.5 Positive work values (patience, cost, quality and safety consciousness, etc.)
3. Underpinning skills	3.1 Setting up and operating blocking machines 3.2 Interpreting design and details specified by the shoe design 3.3 Interpreting work ticket 3.4 Interpreting companies quality standards procedures 3.5 Communicating and interacting skills
4. Resource implications	The following resources MUST be provided: 4.1 Workplace with proper lighting and ventilation 4.2 Work ticket 4.3 Blocking machine 4.4 Vamps to be blocked 4.5 Air supply 4.6 Chalk powder 4.7 Blocked vamp pattern 4.8 Water 4.9 Flat bowl 4.10 Blocking blades 4.11 Knife 4.12 Grinding stone 4.13 Cutting board
5. Methods of assessment	Competency must be assessed through: 5.1 Direct observation/ demonstration of candidate's performance of knowledge to tasks and questioning related to underpinning knowledge
6. Context for assessment	6.1 Competency may be assessed individually in the actual workplace or in a simulated environment or in TESDA accredited assessment center

UNIT OF COMPETENCY: **PERFORM SKIVING OPERATION**
UNIT CODE: **FWR744314**
UNIT DESCRIPTOR: This unit covers knowledge, skills and attitudes required in operating single step cylinder knife skiving machine and determining the quality of skived upper parts.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Perform machine setting procedures	1.1 ***Machine adjustments*** are made in accordance with ***skiving specifications*** and safety procedures. 1.2 Cylinder knife is sharpened in accordance with manufacturer's procedural manual. 1.3 Machine is tested in accordance with manufacturer's requirements / procedures.
2. Position work pieces on the bench top	2.1 Work pieces are stacked according to skiving requirements. 2.2 Work pieces are positioned according to the flow of operation.
3. Skive components	3.1 Skiving is performed in accordance with safety requirements and job specifications. 3.2 Skiving is performed using appropriate ***tools and equipment*** and ***personal protective equipment (PPE).***
4. Segregate and bundle upper components	4.1 Upper components are segregated in accordance with company policies and procedures. 4.2 Upper components are bundled and labeled in accordance with company policies and procedures.
5. Perform machine maintenance	5.1 Machine and its accessories and tools are cleaned in accordance with manufacturer's requirements. 5.2 Waste materials are disposed of in accordance with housekeeping practices. 5.3 Machines are lubricated / oiled in accordance with manufacturer's recommendations

RANGE OF VARIABLES

VARIABLE	RANGE
1. Machine Adjustment	1.1 Width Guide 1.2 Pressure Foot 1.3 Height Adjustment
2. Skiving Specifications	2.1 Fold Skive 2.2 Underlay Skive 2.3 Raw edge Skive 2.3.1 Open Raw 2.3.2 Close Raw 2.4 Splitting
3. Safety Requirements	3.1 Compliance with safety hazards and measures while working 3.2 Safety in machine setting and maintenance
4. Tools	4.1 Dressing tool 4.2 Shears/scissors/cutters 4.3 Leather substance gauge 4.4 Cleaning brush
5. PPE	5.1 Apron 5.2 Mask

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Adjusted the machine 1.2 Performed skiving operations: 1.2.1 Folding 1.2.2 Underlay 1.2.3 Raw edges 1.3 Performed basic machine preventive maintenance 1.4 Interpreted and followed work ticket instructions 1.5 Organized work pieces and cleaned work area
2. Underpinning knowledge and attitude	2.1 Safe work practices 2.2 Machine's parts and function and adjustment 2.3 Tools 2.4 Types of pressure foot and feed rollers 2.5 Types of skives 2.6 Familiarity with upper and lining components parts 2.7 Quality standards 2.8 Maintenance 2.9 Positive work values (being organize, cost, quality and safety consciousness, patience, etc.)
3. Underpinning skills	3.1 Adjusting and setting procedures 3.2 Measuring thickness of leather using thickness gauge and ruler 3.3 Communicating and interacting skills 3.4 Interpreting work ticket
4. Resource implications	The following resources MUST be provided 4.1 Single-step cylinder skiving machine 4.2 Workplace with proper lighting and ventilation 4.3 Work ticket 4.4 Materials relevant to the proposed activity 4.5 Tools and equipment appropriate for measuring leather
5. Method of assessment	Competency MUST be assessed through: 5.1 Direct observation/demonstration of the candidate's application of knowledge to tasks and questioning related to underpinning knowledge 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in workplace or in a simulated workplace setting or in any TESDA accredited assessment center

UNIT OF COMPETENCY: **PERFORM UPPER LEATHER SPLITTING OPERATION**

UNIT CODE: **FWR744315**

UNIT DESCRIPTOR: This unit covers knowledge, skills and attitudes required in reducing leather substance using machine with a controlled endless revolving blade. This operation is mainly directed at reducing heel covers, platform and wedge covers. It can also be used to reduce insole binding and the weight of complete shoe uppers.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the range of variables
1 Perform machine setting procedures	1.1 ***Machine adjustments*** are made in accordance with splitting specifications and safety procedures. 1.2 Band knife is sharpened and repositioned in accordance with manufacturers procedural manual. 1.3 Machine is tested in accordance with manufacturer's requirements / procedures.
2. Position work pieces on the bench top	2.1 ***Work pieces*** are stacked according to splitting requirements. 2.2 Work pieces and ***tools*** are positioned according to the flow of operation.
3. Perform splitting operations	3.1 Splitting is done uniformly in accordance with work ticket and safety requirements. 3.2 Splitting is performed without damage to grain surface.
4. Segregate and bundle upper components	4.1 Upper components are segregated according to size and parts. 4.2 Upper components are piled up in pairs according to sizes and parts and then bundled.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Work pieces	1.1 Insole 1.2 Outsole 1.3 Shoe lace/string 1.4 Straps 1.5 Belts
2. Machine adjustments	2.1 Tension 2.2 Thickness 2.3 Size
3. Tools	3.1 Shears/scissors/cutters 3.2 Leather substance gauge 3.3 Cleaning brush

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Set the splitting machine 1.2 Positioned work pieces 1.3 Split components uniformly 1.4 Segregated and bundled upper components 1.5 Interpreted and followed the work instructions accurately
2. Underpinning knowledge and attitude	2.1 Safe work practices 2.2 Machine's parts and function and adjustments 2.3 Tools 2.4 Familiarity with upper and lining component parts 2.5 Quality standards 2.6 Maintenance 2.7 Positive work values (being organize, cost, quality and safety consciousness, patience, attention to details, etc.) 2.8 5S
3. Underpinning skills	3.1 Adjusting and setting procedures 3.2 Measuring thickness of leather using thickness gauge and ruler 3.3 Communicating and interacting skills 3.4 Interpreting work ticket
4. Resource implications	The following resources MUST be provided: 4.1 Splitting machine 4.2 Workplace with proper lighting and ventilation 4.3 Work ticket 4.4 Materials relevant to the proposed activity 4.5 Tools and equipment appropriate for measuring leather substance
5. Methods of assessment	Competency must be assessed through: 5.1 Direct observation/ demonstration of the candidate's application of knowledge to tasks and questioning related to underpinning knowledge 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in the workplace or in a simulated workplace setting or in any TESDA accredited assessment center

UNIT OF COMPETENCY: **PERFORM MACHINE PERFORATION AND GIMPING OPERATIONS**

UNIT CODE: **FWR744316**

UNIT DESCRIPTOR: This unit covers knowledge, skills and attitudes required in operating and maintaining perforating machine and checking quality of perforated or gimped upper components

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Perform machine setting adjustments	1.1 Machine is ***set up*** as per standard operating procedures and work ticket. 1.2 Machine operation is tested in accordance with manufacturer's manual. 1.3 Safety precautions are followed in accordance with OH& S requirements.
2. Place work pieces on bench top	2.1 Work pieces are stacked according to standard operating procedures 2.2 Work pieces are positioned according to procedure
3. Perform perforating operation	3.1 Punching is performed without damage to the component as per work quality standard. 3.2 ***Punched holes*** size are in accordance with ***specifications.***
4. Perform gimping operation	4.1 Task is completed within 30 seconds depending on shoe design. 4.2 Gimped edge is cut as per work specification (5mm or depending on the allowance provided on the upper component). 4.3 Guide markings between the gimps are visibly done as per standard procedures. 4.4 Gimp crossover cut are done at the cut-off edge as per standard procedures
5. Segregate and bundle upper components	5.1 Upper components are segregated according to size and parts 5.2 Upper components are piled up in pairs according to sizes and parts and then bundled.
6. Perform machine maintenance	6.1 Machine is cleaned and oiled according to safety standards and manufacturer's manual 6.2 Nylon plate and reduction block are rotated as per manufacturer's manual

RANGE OF VARIABLES

VARIABLE	RANGE
1. Machine set-up	1.1 Pressure 1.2 Spacing 1.3 Angle of tube
2. Specifications	2.1 Size 2.2 Distance 2.3 Alignment 2.4 Complete penetration of punch
3. Punched holes	3.1 Diamond 3.2 Triangle 3.3 Oblong 3.4 Drop 3.5 Round 3.6 Gimp 3.7 Fan

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Set up perforating machine 1.2 Performed perforating and/or gimping operation 1.3 Maintained perforating machine in good working condition
2. Underpinning knowledge and attitude	2.1 Perforating and gimping operations 2.2 Tubes and dies used in perforating machine 2.3 Perforating machine parts and functions 2.4 Gimping machine parts and functions 2.5 Procedures in replacing tubes and dies 2.6 Machine adjustments procedures 2.7 Guide adjustments 2.8 Quality of punching and gimping 2.9 Maintenance Procedures 2.10 Positive work values (being orderly and organize, cost and quality consciousness, attention to details, patience, etc.)
3. Underpinning skills	3.1 Selecting type of tube or die based on the specifications on the shoe design and work ticket 3.2 Operating perforating and gimping machines 3.3 Interpreting work ticket 3.4 Communicating and interacting skills
4. Resource implications	The following resources MUST be provided: 4.1 Workplace with proper lighting and ventilation 4.2 Work ticket 4.3 Perforating machine 4.4 Tubes and dies 4.5 Upper components 4.6 Maintenance tools
5. Methods of assessment	5.1 Competency must be assessed through direct observation/ demonstration of candidate's performance of knowledge to tasks and questioning related to underpinning knowledge
6. Context for assessment	6.1 Competency may be assessed individually in the workplace or in a simulated workplace setting or in any TESDA accredited assessment center

UNIT OF COMPETENCY: **PERFORM FOLDING OPERATIONS**
UNIT CODE: **FWR744317**
UNIT DESCRIPTOR: This unit covers knowledge, skills and attitude required in folding upper materials prior to stitching or attaching

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variable
1. Attach reinforcement material	1.1 ***Reinforcement material*** is attached on the edge of the upper components according to required ***allowances.*** 1.2 Dimensions of prepared reinforcement material are in accordance with work ticket specifications. 1.3 Overlapping of the reinforcement materials ends is aligned as per standard operating procedures.
2. Apply adhesive on the edge to be folded	2.1 Adhesive is applied to components in accordance with work ticket specifications. 2.2 ***Application tools*** are cleaned and stored according to company requirements and practices. 2.3 Mask is worn in accordance with company safety requirements.
3. Cut nicks on concave edges	3.1 Nicks are slanted with lengths not exceeding half the width of fold. 3.2 Distances between nicks are equally distributed in accordance with shoe design.
4. Perform folding operation	4.1 Folding method is selected in accordance with work ticket. 4.2 Folding operation is performed according to ***quality company standard.*** 4.3 ***Folding tools*** are used in accordance with safety procedures.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Reinforcement material	1.1 Self-adhesive 1.1.1 Nylon tape 1.1.2 Woven tape 1.2 Non-adhesive 1.2.1 Cotton tape 1.2.2 Drill cloth strip 1.3 String for thermo folding machine
2. Allowance for reinforcement material	2.1 Distance from the edge = 4-5 mm 2.2 Width from the edge = 3-4 mm 2.3 Overlapping = 10 mm
3. Adhesive	3.1 Latex 3.2 Double-sided adhesive tape 3.3 Hot melt 3.3.1 Chips 3.3.2 Block 3.4 Rubber solution 3.4.1 water-based 3.4.2 solvent-based
4. Application tools	4.1 Flat Brushes 4.2 Round Brushes
5. Folding tools	5.1 Scissors 5.2 Nylon Board or Marble 5.3 Awl or Folding Knife 5.4 Folding hammer 5.5 Brush
6. QS of Folding Operation	6.1 Even and smooth 6.2 Folding width is 4-5 mm all over the edge 6.3 No bulges and corners on curve 6.4 Follow the shape or contour of shoe component and design

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Attached reinforcement material 1.2 Applied adhesive 1.3 Performed folding operations 1.4 Cut nicks on concave edges 1.5 Used correct type of adhesive for folding 1.6 Used folding tools with safety 1.7 Applied quality in work areas
2. Underpinning knowledge and attitude	2.1 Reinforcement material 2.2 Adhesive 2.3 Materials to be folded 2.4 Folding tools 2.5 Snipping and tucking procedures 2.6 Interpreting and converting Metric to English System and vice versa 2.7 Positive work values (Quality consciousness, patience, attention to work details, orderliness, etc.)
3. Underpinning skills	3.1 Interpreting design and details 3.2 Interpreting work ticket 3.3 Communicating and interacting skills
4. Resource implications	The following resources MUST be provided: 4.1 Workplace with proper lighting and ventilation 4.2 Work ticket 4.3 Folding tools 4.4 Materials to be folded 4.5 Reinforcement materials 4.6 Adhesive 4.7 Upper sample or specification chart
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation/ demonstration of the candidate's performance of knowledge to task sand questioning related to underpinning knowledge 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in the workplace or in a simulated workplace setting or in TESDA accredited assessment center.

UNIT OF COMPETENCY: **PERFORM STITCHING OPERATION ON UPPER AND/OR LINING COMPONENTS**

UNIT CODE: **FWR744318**

UNIT DESCRIPTOR: This unit covers knowledge, skills and attitudes required to operate stitching machines and determine the stitching parameters and quality of stitched uppers and/or lining components

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Prepare work pieces	1.1 Work bundle is received and checked in accordance with the work ticket 1.2 Work pieces are organized according to standard operating procedure 1.3 Work pieces are laid out in correct sequence in accordance with standard operating procedure 1.4 Components are attached according to work specification using appropriate attaching ***materials***
2. Prepare machine for stitching	2.1 ***Stitching machine*** is set-up and adjusted in accordance with the workplace requirements and specifications on the work ticket 2.2 ***Needle system, size and point*** are identified in accordance with the material and machine being used 2.3 ***Thread size, type*** and color are chosen in accordance with the needle and ***material*** requirements 2.4 Machine's stitch regulator is set-up and adjusted in accordance with job work specification 2.5 Hook timing is set in accordance with stitch formation when required

3. Stitch upper and/or lining components	3.1 Task is completed within specified ***time frame*** according to the design/style of shoe, ***seam, binding and trimmings*** to be done 3.2 Distance of stitches from the edge are followed in accordance with job specification 3.3 Allowances between double rows of stitching are followed in accordance with the design specified in the work ticket
4. Trim excess threads of the stitched components	4.1 Task is completed within specified time frame and quantity of stitched components to be trimmed 4.2 Excess threads of more than 10 mm are trimmed in accordance with job specification 4.3 Stitched components are arranged and placed to the WTM

RANGE OF VARIABLES

VARIABLE	RANGE
1. Attaching materials for components	1.1 Rubber cement 1.2 Contact cement 1.3 Double-sided tape 1.4 Hot melt adhesive
2. Stitching machine	2.1 Flat Bed 2.1.1 Single Needle 2.1.2 Double Needle 2.1.3 Zigzag 2.2 Post Bed 2.2.1 Single Needle 2.2.2 Double Needle 2.3 Cylinder Arm 2.4 Computerized Stitching Machines 2.4.1 Semi-computerized 2.4.2 Fully computerized 2.5 Patcher Machine
3. Needle system, size and point	3.1 Needle system includes: 34, 134, 134-35, 438 3.2 Needle size 3.2.1 Metric (40,45,50,…,480 MN) OR 3.2.2 Singer or Simon Co. (4,5,6,…,36) 3.3 Needle point includes: 3.3.1 Round – R 3.3.2 Wedge – P, PCL, PCR 3.3.3 Cross – S 3.3.4 Twist or Reverse twist – LR, LL 3.3.5 SD1, DI, D
4. Thread size, type and color	4.1 Thread thickness 10, 20, 30, 40, …, 150 4.2 Thread twist 4.2.1 Z – twist 4.2.2 S – twist 4.3 Thread types 4.3.1 Natural (cotton, flax, jute, hemp, kapok, wool, hair silk) 4.3.2 Organic (rayon, synthetic fibers – polyamides, polyurethane, polyvinyl, nylon) 4.3.3 Inorganic (gold, silver, copper)

5. Seam	5.1 Closed 5.2 Lapped 5.3 Open 5.4 Silked or French 5.5 Brooklyn 5.6 Piped 5.7 Butted 5.8 Blind 5.9 Cording 5.10 Decorative
6. Binding	6.1 English or U-binding 6.2 French Binding 6.3 Italian Binding
7. Machine parts	7.1 Bench top 7.2 Head 7.3 Arm 7.4 Bobbin Rewinder 7.5 Thread Stand 7.6 Motor 7.7 Treadle 7.8 Tension Regulator 7.9 Face Plate 7.10 Throat Plate 7.11 Feed Wheel 7.12 Pressure Wheel 7.13 Bobbin Case
8. Materials	8.1 Leather 8.2 Synthetic 8.3 Fabric
9. Trimmings and fastening	9.1 Velcro 9.2 Elastic 9.3 Buckle straps
10. Time Frame	10.1 Stitching operation = 30-60 seconds/pair 10.2 Trimming – 10 seconds/pair Note: Time varies depending on the design/style to be stitched and quantity of threads to be trimmed

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Organized work pieces 1.2 Adjusted the stitching machine 1.3 Determined needle and thread to be used 1.4 Performed the required stitching operations 1.5 Cleaned/organized work area 1.6 Maintained stitching machine working condition 1.7 Demonstrated correct procedures in operating at least 3 out of 5 types listed in the range of variables (preferably flat-bed, post-bed and cylinder arm machine)
2. Underpinning knowledge and attitude	2.1 Machine parts and functions 2.2 Machine operating procedures 2.3 Thread and needle specifications, and thread – needle relationship 2.4 Seam types, binding types and other stitching operations 2.5 Familiarity with upper and lining components 2.6 The sequence of operation dictated by the shoe design 2.7 Positive work values (patience, attention to details, being organize, cost, quality and safety consciousness) 2.8 5S 2.9 Quality Standard 2.10 Identifying and interpreting different measurement units used in the Metric and English System
3. Underpinning skills	3.1 Dexterity in stitching upper and lining components 3.2 Adjusting, operating and maintaining of machine 3.3 Interpreting design and details specified by the shoe design 3.4 Interpreting work ticket 3.5 Communicating and interacting skills

4. Resource implications	The following resources MUST be provided: 4.1 Workplace location with proper lighting 4.2 Work ticket 4.3 Industrial sewing machine 4.4 Materials to be stitched 4.5 Stitching supplies (e.g. thread, needle) 4.6 Tools (e.g. scissors or nippers, screwdrivers, precision keys) 4.7 Oil and cleaning agents (e.g. kerosene) 4.8 Upper sample or specification chart
5. Methods of assessment	Competency must be assessed through: 5.1 Direct observation / demonstration of the candidate's performance of knowledge to task and question related to underpinning knowledge 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in workplace or in a simulated workplace setting or in any TESDA accredited assessment center.

UNIT OF COMPETENCY: **PERFORM HAND-STITCHING OPERATIONS**
UNIT CODE: **FWR744319**
UNIT DESCRIPTOR: This unit covers knowledge, skills and attitude required in the performance of hand stitching operation.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Prepare materials	1.1 ***Thread*** is selected in accordance with the work ticket. 1.2 Needles are threaded and waxed in accordance with standard operating procedures. 1.3 Parts and holes are checked for ***damage and defects***. 1.4 ***Holes for stitching*** are punched based on standard operating procedures and work ticket.
2. Perform hand stitching	2.1 Hand stitching is performed in accordance with the work ticket without damage to the upper component. 2.2 Hand stitching style is performed according to the required design of the shoe. 2.3 Thread and upper component are checked for damage in accordance with company procedures. 2.4 Stitches made are leveled and equal for both pair of shoes.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Thread	1.1 Color 1.2 Size 1.3 Substance
2. Damage and defects	2.1 vein marks 2.2 tick marks 2.3 looseness 2.4 flay cuts 2.5 scratches 2.6 putrefaction 2.7 wobble fly 2.8 barb wire marks 2.9 salt burns 2.10 ammonia burns 2.11 discoloration 2.12 brand marks 2.13 heavy hair follicles 2.14 heavy grain 2.15 growth marks
3. Stitching style	3.1 Box 3.2 Cross 3.3 Straight 3.4 Pie crust

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Prepared materials 1.2 Performed hand stitching
2. Underpinning knowledge and attitude	2.1 Hand Stitching procedures 2.2 Materials for footwear 2.3 Types and sizes of threads, waxes and needles 2.4 Tools 2.5 Types of stitches 2.6 Quality of stitching and finished footwear 2.7 Safety Practices 2.8 Positive work values (orderliness and being organize, cost, quality and safety consciousness, patience, attention to details, etc.)
3. Underpinning skills	3.1 Selecting thread, needles and punchers 3.2 Preparing and punching holes 3.3 Measuring in Metric / English system 3.4 Interpreting work ticket 3.5 Communicating and interacting skills
4. Resource implications	The following resources MUST be provided 4.1 Workplace with proper lighting and ventilation 4.2 Chair/stool 4.3 Finger protector (leather ring) 4.4 Work ticket 4.5 Needles 4.6 Cut upper parts 4.7 Thread 4.8 Hand-stitching wax (pagkit) 4.9 Punchers 4.10 Dividers 4.11 Awl 4.12 Knife
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation / demonstrations of the candidate's performance of knowledge to task and questions related to underpinning knowledge 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in the workplace or in a simulated workplace setting or in TESDA-accredited assessment center

UNIT OF COMPETENCY: **PREPARE UPPER FOR HAND LASTING**
UNIT CODE: **FWR744310**
UNIT DESCRIPTOR: This unit covers knowledge, skills and attitudes required to prepare upper for hand lasting such us manual insole attachment and manual reactivation of toe puff and stiffeners

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Immerse toe puff and stiffeners into toluene solution	1.1. Task is performed in accordance with procedures and manufacturer's specifications. 1.2. Used solvents (toluene) are stored or disposed following environmental rules and regulations.
2. Insert toe puff and stiffeners to upper	2.1 Task is performed in accordance with procedures and manufacturer's specifications. 2.2 Task is performed without damage to upper component. 2.3 Inserted ***toe-puff and stiffeners*** are evenly distributed inside the upper component. 2.4 Ensured that lining is flattened and free from ***defects.***
3. Attach insole to last with tacks	3.1. Task is performed in accordance with procedures and manufacturer's specifications. 3.2. ***Insole*** is securely attached and flushed to the last according to the type of ***method*** used. ***3.3.*** ***Upper*** parts and last with insole are placed into the ***rack or other working transportation method*** according to procedures***.***

RANGE OF VARIABLES

VARIABLE	RANGE
1. Method	1.1 Tacks/staple 1.2 Unifast 1.3 Hot melt or adhesive 1.4 Double-sided pads
2. Insole	2.1 Leather board 2.2 Cellulose board 2.3 Leather 2.4 Plastic 2.5 Woven/Non-woven material 2.6 Fabric 2.7 Fiberboard
3. Toe puff and Stiffeners	3.1 Leather 3.2 Leather board 3.3 Performed layer 3.4 Celluloid 3.5 Thermoplastic 3.6 Nitrocellulose impregnated with fabrics 3.7 Paint on 3.8 Impregnated fabric – heat reactivated 3.9 Print on 3.10 Filmic 3.11 Polystyrene 3.12 Celastic 3.13 Rubber
4. Upper	4.1 Leather 4.2 Synthetics 4.3 Fabrics
5. Racks/Work Transport Methods (WTM)	5.1 Racks 5.2 Conveyor 5.3 Trolleys 5.4 Boxes 5.5 Bags 5.6 Monorail 5.7 Hand
6. Defects	6.1 Damage to lining 6.2 Damage to upper 6.3 Straining of lining 6.4 Burst seam of lining 6.5 Burst seam of upper 6.6 Twisted lining 6.7 Pockets between lining and upper 6.8 Creases

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Checked the last, insole and stitched upper 1.2 Inserted toe puff and stiffeners into the uppers 1.3 Fitted stiffener up to top line of quarter and or counter. 1.4 Attached insole to shoe last
2. Underpinning knowledge and attitude	2.1 Safe work practices and first aid regulations 2.2 Basic arithmetic 2.3 Footwear anatomy 2.4 Toe puff and stiffener materials 2.5 Last shapes 2.6 Upper size/fit and color system 2.7 Solvent and adhesive materials 2.8 Back heights 2.9 Handling and storage of adhesives 2.10 Quality standards 2.11 Insole materials 2.12 Uni-fast pegs 2.13 Hot melt glue gun 2.14 Positive work values (organize, cost, quality and safety consciousness, patience, etc.)
3. Underpinning skills	3.1 Interpreting work tickets 3.2 Communicating skills 3.3 Using tacking/stapling tools
4. Resource implications	The following resources MUST be provided: 4.1 Workplace with proper lighting and ventilation 4.2 Materials relevant to the activity 4.3 Tools and equipment appropriate for attaching insoles and inserting toe puff and stiffeners into uppers 4.4 Work ticket 4.5 Lasting table
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation / demonstration of the candidate's application of knowledge to tasks and questioning related to underpinning knowledge 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in the workplace or in a simulated workplace setting or in any TESDA accredited assessment center

UNIT OF COMPETENCY	**PERFORM BASIC HAND LASTING**
UNIT CODE	**FWR744311**
UNIT DESCRIPTOR	This unit covers knowledge, skills and attitudes required in basic manual lasting following enterprise and quality requirement.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Attach ***upper*** to ***insole***/last	1.1 Counter is aligned in accordance with identified ***back height*** of last 1.2 Back seam is straightened and positioned at the center of the counter 1.3 Tacks are firmly embedded and hammered into metal seat plate 1.4 Safety practices are observed in handling of lasting pincer and tacks
2 Apply adhesive to upper components and insole	2.1 Adhesive for upper materials are selected based on job specifications and product materials compatibility 2.2 Upper components and insole surfaces are prepared according to company procedures 2.3 ***Adhesive*** is applied to components according to manufacturer's recommendations and company procedures 2.4 Adhesive is evenly applied to bottom and along the edge of insole 2.5 Ensured that outside of upper components or last are clean and free from adhesive 2.6 Adhesive is dried in accordance with manufacturer's recommendation
3 Carry out toe lasting	3.1 Topline of upper is positioned in accordance with work practice 3.2 Lasting allowance of upper are pulled using lasting pincers and secured at the insole 3.3 Whole upper is straight and wrinkles or pleats showing at shoe feather edge are flattened in accordance with company practice

4 Perform seat and side lasting	4.1 Ensured that topline of upper is tight from toe to last 4.2 Pleats and creases found between lining and upper material are removed and flattened in accordance with company procedures 4.3 Upper stiffener and lining are pulled tightly and hammered to insole leaving no surplus material at the waist 4.4 Tacks are turned over on the metal seat plate
5 Flatten upper to feather edge	5.1 Feather edge gave a smooth feather line 5.2 Upper is completely lasted to insole and is free from ***damage*** 5.3 Ensured that upper is tightly lasted with no pucker or gaps between the upper and last

RANGE OF VARIABLES

VARIABLE	RANGE
1. Back height	1.1 Back straps 1.2 Basic counters 1.3 Counters Dogtails 1.4 Collar
2. Insole	2.1 Upper Materials: 2.1.1 Leather 2.1.2 Synthetics 2.1.3 Fabrics 2.2 Insole Materials: 2.2.1 Leather board 2.2.2 Cellulose board 2.2.3 Leather 2.2.4 Plastic 2.2.5 Woven/Non-woven material 2.2.6 Fabric 2.2.7 Fiberboard
3. Adhesive	3.1 Neoprene 3.2 Polyurethane 3.3 Solvent based 3.4 Hot melt adhesive 3.5 Latex 3.6 Grafted adhesive
4. Damage	4.1 Damage to lining 4.2 Damage to upper 4.3 Straining of lining 4.4 Burst seam of lining 4.5 Burst seam of upper 4.6 Twisted lining 4.7 Tack damage 4.8 Print through of toe-puff 4.9 Print through of stiffener 4.10 Rips caused by over pulling
5. Tacks	5.1 Staples 5.2 Nail tacks
6. Tools	6.1 Pincers 6.2 Staple remover 6.3 Tack remover knife

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Checked counter's position against back height and back seam 1.2 Removed and flattened all creases between lining, interlining and upper 1.3 Applied adhesive to bottom edge of upper and edge of insole 1.4 Followed procedures in applying adhesive to upper and last 1.5 Allowed proper drying time of adhesive 1.6 Secured topline at correct height 1.7 Determined tacks are turned over on metal seat plate 1.8 Checked all temporary tacks are removed from insole 1.9 Inspected the quality of lasted shoes 1.10 Compared lasted pairs are matching
2. Underpinning knowledge and attitude	2.1 Safe work practices and first aid regulations 2.2 Cleanliness and orderliness in the workplace 2.3 Upper and backing materials 2.4 Handling and storage of adhesive 2.5 Company quality standards 2.6 Solvents and adhesive materials 2.7 Footwear hand lasting tools 2.8 Hand lasting operation
3. Underpinning skills	3.1 Interpreting work tickets 3.2 Communicating and interacting effectively with other staff and management within the workplace
4. Resource implications	The following resources must be provided: 4.1 Workplace location with proper lighting 4.2 Work ticket 4.3 Materials relevant to proposed activity 4.4 Tools and equipment appropriate for the process of hand lasting

5. Methods of assessment	Competency **MUST** be assessed through: 5.1 Direct observation/demonstration with oral questioning related to underpinning knowledge 5.2 Portfolio.
6. Context for assessment	6.1 Competency may be assessed individually in the workplace or in a simulated workplace setting or in any TESDA accredited assessment center

UNIT OF COMPETENCY: **ATTACH INSOLE TO LAST BY MACHINE**
UNIT CODE: **FWR744309**
UNIT DESCRIPTOR: This unit covers the knowledge, skills and attitudes required in attaching insole to the last by machine and determines the quality and standards of an attached insole before lasting

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated **i**n the Range of Variables
1. Set machine for operation	1.1 Insoles and last are prepared in accordance with job specifications 1.2 ***Machine adjustments*** are made in accordance with the job and ***materials specifications*** 1.3 Machine is tested in accordance with manufacturer's procedural manual
2. Attach insole to the last	2.1 ***Insole*** is ***attached*** to the last in accordance with job specification 2.2 Insole attaching machine is operated in accordance with manufacturer's procedural manual 2.3 Attached insoles are checked according to company standards

RANGE OF VARIABLES

VARIABLE	RANGE
1. Machine adjustments	1.1 Insole tacking machine 1.1.1 Air pressure (must not exceed 100 psi) 1.1.2 Air lubricator and air filter 1.1.3 Staple/tacks guides or raceway 1.1.4 Height of stand 1.1.5 Depth of staples/tacks 1.2 Hot melt/ Glue gun 1.2.1 Temperature setting
2. Attached insole	2.1 Tacks/staple 2.2 Unifast 2.3 Hot melt or adhesive
3. Insole	3.1 Type 3.2 Thickness

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Performed machine adjustments 1.2 Attached insole to last by machine 1.3 Checked quality of attached insole
2. Underpinning knowledge and attitude	2.1 Safe work practices and first aid regulation 2.2 Shapes and specifications of last 2.3 Insole materials 2.4 Types, parts and functions of the insole attaching machines 2.5 Tools used for insole attachment 2.6 Procedures in attaching insole to last 2.7 Operating procedures of insole attaching machine 2.8 Positive work values (being organize, cost, quality and safety consciousness, patience, attention to details, etc.)
3. Underpinning skills	3.1 Interpreting work tickets 3.2 Operating insole attaching machine 3.3 Communicating skills
4. Resource implications	The following resources MUST be provided: 4.1 Materials relevant to the activity 4.2 Tools and equipment appropriate for attaching insole to the last 4.3 Work ticket 4.4 Workplace with appropriate lighting and ventilation
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation/ demonstration of the candidate's application of knowledge to task and questions related to underpinning knowledge and skills 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in the actual workplace or in a simulated environment or in TESDA accredited assessment center

UNIT OF COMPETENCY: **PERFORM TOE PUFF AND STIFFENERS ACTIVATION**

UNIT CODE: **FWR744307**

UNIT DESCRIPTOR: This unit covers knowledge, skills and attitudes required to activate toe puff and stiffeners by using toe puff press and back part molding machine

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Set machine	1.1 ***Machine is*** adjusted based on the type of upper and stiffener materials. 1.2 Ensured that toe puff press machine is free from adhesive residues.
2. Insert /Activate toe-puff	2.5 Task is performed in accordance with procedures and manufacturer's specifications. 2.6 Task is performed without damage to upper component. 2.7 Inserted/activated ***toe-puff*** is evenly distributed inside the upper and lining component. 2.8 Lining is flattened and freed from ***defects.***
3. Insert /Activate stiffener	3.1 ***Stiffeners*** are inserted/activated between upper and lining in accordance with standard operating procedures. 3.2 Center of stiffener and counter or quarter are matched and aligned with the back seam. 3.3 Stiffener is molded and activated in accordance with back part molding standard. 3.4 Task is performed without damage to upper and lining components.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Machine adjustments	1.1 Air pressure 1.2 Temperature 1.3 Time setting 1.4 Wiper adjustments 1.5 Back part moulding machine
2. Toe Puff materials	2.1 Print on 2.2 Paint on 2.3 Filmic 2.4 Polystyrene 2.5 Celastic 2.6 Rubber 2.7 Leather board
3. Stiffener materials	3.1 Leather 3.2 Leather board 3.3 Performed layer 3.4 Celluloid 3.5 Thermoplastic 3.6 Nitrocellulose impregnated with fabrics 3.7 Paint on 3.8 Impregnated fabric – heat reactivated
4. Defects	4.1 Damage to lining and/or upper 4.2 Straining of lining 4.3 Burst seam of lining and/or upper 4.4 Twisted lining 4.5 Pockets between lining and upper

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Set up toe puff press machine and back part moulding machine 1.2 Inserted/activated toe puff and stiffeners 1.3 Moulded stiffeners correctly 1.4 Operated the toe puff press machine and back part moulding machine
2. Underpinning knowledge and attitude	2.1 Safe work practices and first aid regulations 2.2 Types of toe puff and stiffener materials 2.3 Upper size/fit and color system 2.4 Machine parts and functions 2.5 Types of solvent and adhesive materials 2.6 5 S 2.7 Back heights 2.8 Quality standards procedures 2.9 Positive work values (orderliness and being organize, cost, quality and safety consciousness, patience, etc.)
3. Underpinning skills	3.1 Interpreting work tickets 3.2 Adjustments for toe puff and stiffener reactivation and moulding 3.3 Operation and minor maintenance of toe-puff press and back part moulding machine 3.4 Operating toe-puff press and back part moulding machine 3.5 Communicating skills
4. Resource implications	The following resources MUST be provided: 4.1 Toe puff press machine 4.2 Back part moulding machine with hot and cold mouldings 4.3 Materials relevant to the activity 4.4 Tools appropriate for inserting toe puff and stiffeners into uppers 4.5 Work ticket 4.6 Workplace with proper lighting and ventilation
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation/ demonstration of the candidate's application of knowledge to tasks and questioning related to underpinning knowledge 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in the workplace or in a simulated workplace setting or in TESDA accredited assessment center

UNIT OF COMPETENCY: **PERFORM BASIC MACHINE LASTING**
UNIT CODE: **FWR744320**
UNIT DESCRIPTOR: This unit covers knowledge, skills and attitude required in performing toe lasting, seat and side lasting of a flat lasted construction.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1 Perform machine settings	1.1 ***Machine is set up*** according to manufacturer's specifications and work ticket requirements 1.2 Machine is tested in accordance with manufacturer's requirements
2 Perform toe lasting	2.1 Toe lasting is performed in accordance with work ticket and style/design of shoes 2.2 Toe lasting is performed with no excess adhesive and no crease at toe featheredge
3 Carry out seat and side lasting	3.1 Seat and side lasting is carried out within 30 seconds to 1 ½ minutes per set in accordance with work ticket and standard operating procedures 3.2 Seat of lasted upper is flattened and evened without ***damage***. 3.3 ***Adhesive*** is applied to the seat of lasted upper without excess (no extrusion). 3.4 Seat and side lasting are checked as per standard quality procedures

RANGE OF VARIABLES

VARIABLE	RANGE
1. Machine setting	The different machine settings to be done are: 1.1 Temperature 1.2 Cycle Dwell timer 1.3 Air Pressure 1.4 Wiper Temperature Regulator 1.5 Thermoplastic Rod Temperature Regulator 1.6 Pincer Pull Pressure Regulator 1.7 Heater Switch 1.8 Positioning of lasted upper
2. Damages	2.1 Damage to lining 2.2 Damage to upper 2.3 Straining of lining 2.4 Burst seam of lining 2.5 Burst seam of upper 2.6 Twisted lining
3. Adhesives	3.1 Neoprene 3.2 Polyurethane 3.3 Water based 3.4 Solvent based 3.5 Rubber cement 3.6 Hot melt adhesive 3.7 Latex 3.8 Graft adhesives

EVIDENCE GUIDE

1 Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Prepared machine settings 1.2 Performed toe lasting 1.3 Carried out seat and side lasting
2 Underpinning knowledge and attitude	2.1 Safe work practices and first aid 2.2 Safe handling of tools and materials 2.3 Upper size/fit and color system 2.4 Kinds of damages/defects in lasting upper 2.5 Machine lasting operations 2.6 Quality standards procedures 2.7 Types and Characteristics of Adhesive 2.8 Positive work values (orderliness and being organize, cost, quality and safety consciousness, patience, etc.)
3 Underpinning skills	3.1 Operating lasting machines 3.2 Communicating and interacting skills 3.3 Interpreting work ticket 3.4 Assessing quality of the lasted uppers and recognizing its defects.
4 Resource implications	The following resources MUST be provided: 4.1 Workplace with proper lighting and ventilation 4.2 Work ticket 4.3 Materials and tools relevant to the activity 4.4 Tools and equipment relevant to the activity
5 Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation/ demonstration of the candidate's application of knowledge to tasks and questioning related to underpinning knowledge 5.2 Portfolio
6 Context for assessment	6.1 Competency may be assessed individually in the workplace or in a simulated workplace setting or in any TESDA accredited assessment center

UNIT OF COMPETENCY **PERFORM CHILLING OPERATION**
UNIT CODE: **FWR744308**
UNIT DESCRIPTOR: This unit covers knowledge, skills and attitude required in performing chilling operation

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Set chilling machine	1.1 Chilling ***machine is set*** in accordance with factory standards/requirements of ***upper***, and ***sole material***. 1.2 Adjustments are made in accordance with the work ticket
2. Monitor chilling operation	2.1 Footwear for chilling is positioned on the conveyor according to standard operating procedures 2.2 Chilling operation is monitored in accordance with standard operating procedures and work ticket 2.3 Footwear is retrieved from chiller and grouped together according to the work ticket 2.4 Machine problems or malfunction reported to supervisors in accordance with company procedures

RANGE OF VARIABLES

VARIABLE	RANGE
1. Machine Setting	1.1 Temperature 1.2 Time 1.3 Speed
2. Upper Material	2.1 Natural Leather 2.2 Synthetic/Man-made 2.3 Fabrics
3. Sole Material	3.1 Thermoplastic Rubber (TPR) 3.2 Polyurethane (PU) 3.3 Solid Rubber 3.4 Microcellular Rubber 3.5 Resin Rubber 3.6 Polyvinyl Chloride (PVC) 3.7 Ethylene Vinyl Acetate (EVA)

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidences that the candidate: 1.1 Adjusted machine settings 1.2 Monitored chilling operations
2. Underpinning knowledge and attitude	2.1 Chilling machine settings. 2.2 Safe work practices 2.3 First aid 2.4 Basic product knowledge 2.5 5S 2.6 Positive work values (orderliness and being organize, cost, quality and safety consciousness, patience, etc.)
3. Underpinning skills	3.1 Communicating and interacting skills 3.2 Interpreting work ticket
4. Resource implications	The following resources MUST be provided 4.1 Workplace with proper lighting and ventilation 4.2 Work ticket 4.3 Materials relevant to the activity 4.4 Tools and equipment appropriate for chilling operation
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation/ demonstration of candidate's application of knowledge to tasks and questioning related to underpinning knowledge 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in the work place or in a simulated workplace setting or in any TESDA accredited assessment center.

UNIT OF COMPETENCY	**PERFORM PRE-BONDING OPERATIONS**
UNIT CODE:	**FWR744321**
UNIT DESCRIPTOR:	This unit covers knowledge, skills and attitude required to perform pre-bonding operations such as tack lifting, bottom and outsole cementing, and solvent wiping/priming in preparation for bonding operations.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Remove tacks from bottom of lasted upper	1.1 Tacks are removed from the lasted upper as per standard operating procedures. 1.2 Lasted uppers removed are free from scratch marks. 1.3 Bonding of lasting margin to the ***insole*** is kept intact.
2. Mark and inspect quality of lasted upper	2.1 ***Outsoles*** and lasted uppers are matched according to style and size. 2.2 Bottom profile of upper is marked according to the area of sole to be used. 2.3 Lasted uppers are inspected according to standard operating procedures
3. Perform roughing and scouring	3.1 Roughing and scouring is performed in accordance with standard operating procedures. 3.2 Grains and ***finish*** of the lasting margin are removed without ***damage*** to upper. 3.3 Fibers of the last are teased/raised in accordance with work procedures. 3.4 Top surface of the outsole is scoured without damage and free from plasticisers.

4. Perform bottom cementing and attachment of filler	4.1 Bottom cementing and attachment of filler are performed in accordance with work specification. 4.2 ***Filler is*** attached on the bottom profile of the lasted upper in accordance with the thickness of ***upper material***.
5. Perform sole wiping and sole cementing	5.1 Outsole is primed according to material requirement/specification. 5.2 Outsole is primed without causing damage to material. 5.3 ***Primers*** are handled in accordance with OH & S requirements. 5.4 Sole wiping and cementing is performed in accordance with standard operating procedures.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Insoles	1.1 Leather Board 1.2 Cellulose board 1.3 Plastic 1.4 Woven/Non-woven material 1.5 Fabric 1.6 Fiber board
2. Outsoles	2.1 Leather Unit Soles 2.2 Polyvinyl Chloride (PVC) 2.3 Thermoplastic Rubber (TPR) 2.4 Thermoplastic Urethane (TPU) 2.5 Polyurethane (PU) 2.6 Ethyl Vinyl Acetate (EVA) 2.7 Nylon 2.8 Rubber (Vulcanized, Unvulcanized) 2.9 Crepe 2.10 Resin
3. Finish	3.1 patent 3.2 pearlised 3.3 burnish 3.4 brush off 3.5 nubuck 3.6 full grain 3.7 corrected 3.8 crazy horse 3.9 printed 3.10 oil pull up 3.11 exotic (ex. Snake print, ostrich, crocodile, etc.)
4. Damages	4.1 Over roughed uppers which extends over the marked areas 4.2 Burnt areas due to blunt brush or abrasive 4.3 Over roughed insoles 4.4 Scratches 4.5 Tears 4.6 Cuts

5. Adhesives	5.1 Polyurethane (PU) 5.2 Polyester 5.3 Ethyl Vinyl Acetate (EVA) 5.4 Polychloroprene 5.5 Hotmelt
6. Fillers	6.1 Scrap leather 6.2 Sawdust 6.3 Rubber 6.4 Foam 6.5 Felt materials
7. Upper Materials	7.1 Leather 7.2 Synthetic 7.3 Fabrics
8. Primers	8.1 MEK (mixed solvents) 8.2 PVC Primer 8.3 PU Primer 8.4 Rubber Primer

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Checked quality of lasted uppers 1.2 Operated roughing and scouring machines 1.3 Performed roughing and scouring of shoes 1.4 Performed bottom cementing and attaching of filler 1.5 Performed sole wiping and cementing 1.6 Carried out priming operations 1.7 Followed instructions from work ticket.
2. Underpinning knowledge and attitude	2.1 Safe work practices. 2.2 First aid treatment 2.3 Handling of tools and materials 2.4 Products used in bonding (e.g. adhesives, solvents, primers) 2.5 Footwear terms 2.6 Quality standards 2.7 Different outsole materials 2.8 Positive work values (orderliness and being organize, cost, quality and safety consciousness, patience, etc)
3. Underpinning skills	3.1 Assessing quality of the lasted uppers and recognizing the uppers' defects. 3.2 Communicating and interacting skills 3.3 Interpreting work ticket
4. Resource implications	The following resources MUST be provided: 4.1 Workplace with proper lighting and ventilation 4.2 Work ticket 4.3 Tools and materials 4.4 Machines needed to the said activity
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation/demonstration of the candidate's application of knowledge to tasks and questioning related to underpinning knowledge 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in the workplace or in a simulated workplace setting or in any TESDA accredited assessment center

UNIT OF COMPETENCY: **PERFORM BONDING OPERATIONS**
UNIT CODE: **FWR744322**
UNIT DESCRIPTOR: This unit covers knowledge, skills and attitudes required to perform lasting operation such as sole attaching, sole pressing and de-lasting

ELEMENT	PERFORMANCE CRITERIA **Italicized terms** are elaborated in the Range of Variables
1. Perform sole attaching and pressing	1.1 Solvents are ***reactivated*** in accordance with manufacturer's requirements. 1.2 Sole attached to lasted upper according to ***standard operating procedures*** and without causing ***damage*** to the materials. 1.3 ***Sole press machine*** is set up in accordance with manufacturer's manual. 1.4 Pressing is performed in accordance with standard operating procedures.
2. Perform edge cleaning operations	2.1 Sole and upper are cleaned and free from excess adhesive and without harming the bond. 2.2 ***Tools*** for edge cleaning are used in accordance with the ***type of upper material***.
3. Delasting and inspection of shoe	3.1 Delasting is performed in accordance with standard operating procedures. 3.2 Delasting is performed without causing damage to the topline and seams. 3.3 Shoes are inspected in accordance with quality standard procedures.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Outsoles	1.1 Leather Unit Soles 1.2 Polyvinyl Chloride (PVC) 1.3 Thermoplastic Rubber (TPR) 1.4 Thermoplastic Urethane (TPU) 1.5 Polyurethane (PU) 1.6 Ethyl Vinyl Acetate (EVA) 1.7 Nylon 1.8 Rubber (Vulcanized, Unvulcanized) 1.9 Crepe 1.10 Resin
2. Re-activated	2.1 Semi – automatic (10 seconds) 2.1.1 Flash re-activator machine 2.2 Operator controlled (30 seconds) 2.2.1 Quartz – halogen lamps 2.2.2 Fabricated re-activator machine
3. Standard operation	3.1 Toe part of lasted upper to forepart of outsole 3.2 Seat area of outsole to back part of lasted upper 3.3 Sides of lasted upper to sides of outsole
4. Damages	4.1 Incorrect positioning of lasted upper to outsole 4.2 Weak adhesion due to improper solvent application and/or priming procedures
5. Sole Press Machines	5.1 Two station sole press machine 5.1.1 Pneumatic 5.1.2 Hydraulic pressure sole press 5.2 One station 5.2.1 Pneumatic 5.2.2 Hydraulic pressure sole press
6. Tools	6.1 Pale crepe 6.2 Solvent 6.3 “balibol” 6.4 resin rubber
7. Type of Upper Materials	7.1 Leather 7.2 Synthetic 7.3 Fabrics

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Identified damages on the finished shoe. 1.2 Performed sole attaching and pressing 1.3 Performed edge cleaning operations 1.4 De-lasted and inspected shoe
2. Underpinning knowledge and attitude	2.1 Safe work practices 2.2 Safe handling of tools and materials 2.3 Products used in bonding (e.g. adhesives, solvents, primers) 2.4 Footwear terms 2.5 Quality standards on lasting 2.6 Types of outsole materials 2.7 5 S 2.8 Positive work values (cost, quality and safety conscious, patience, orderliness and being organize, attention to details, etc.)
3. Underpinning skills	3.1 Assessing quality of the lasted uppers and recognizing its defects. 3.2 Communicating and interacting skills. 3.3 Interpreting work ticket. 3.4 Determining damages on the lasted uppers and outsoles.
4. Resource implications	The following resources MUST be provided: 4.1 Workplace with proper lighting and ventilation 4.2 Work ticket 4.3 Materials, tools and equipment relevant to the activity
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation/demonstration of the candidate's application of knowledge to tasks and questioning related to underpinning knowledge 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in the workplace or in a simulated workplace setting or in any TESDA accredited assessment center

UNIT OF COMPETENCY **PERFORM HEEL-ATTACHING OPERATION**
UNIT CODE: **FWR744323**
UNIT DESCRIPTOR: This unit covers the knowledge, skills and attitudes required in attaching heel.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Prepare work pieces	1.1 Work pieces are ***prepared*** in accordance with work standards. 1.2 Roughing machine is used in accordance with manufacturer's procedural manual.
2. Attach heel to sole	2.1 Adhesive is dried and re-activated in accordance with heel attachment procedures. 2.2 Attached heel is aligned to the centerline of the sole and slightly inclined with back part higher than the front depending on its ***height.***
3. Press sole	3.1. Sole is pressed according to standard operating procedures. 3.2. Pressed sole is free from ***damages.***
4. De-last shoe	4.1 De-lasting of shoe is performed in accordance with company procedures. 4.2 Shape of the shoe is retained according to design and style.
5. Fix heel to sole	5.1 Heel is fixed to the sole in accordance with standard operating procedures. 5.2 Heels are fixed with no protruding fasteners on the heel area.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Prepared	Preparation includes: 1.1 Roughing 1.2 Marking 1.3 Priming 1.4 Applying adhesive
2. Sole materials	2.1 Leather 2.2 Resin Rubber 2.3 EVA (Ethyl Vinyl Acetate) 2.4 TPR (Thermo Plastic Rubber) 2.5 PU (Poly Urethane) 2.6 Crepe Rubber
3. Heels	3.1 The use of heels vary on: 3.1.1 Men's shoes 3.1.2 Ladies' shoes 3.2 The different heel materials used are: 3.2.1 Wood 3.2.2 Rubber 3.2.3 Leather 3.2.4 Plastic
4. Heel height	4.1 The different heel height varies and depends on the design of shoe. These can range from 5mm – 75mm or higher
5. Damages	5.1 Press marks 5.2 Scratch marks 5.3 Mis-alignment
6. Adhesives	6.1 Polyurethane (PU) 6.2 Polychloroprene
7. Fasteners	7.1 Buttress nail 7.2 Staple 7.3 Screw 7.4 Common Nail

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Prepared workpieces 1.2 Attached heel to sole 1.3 Pressed sole 1.4 De-lasted shoe 1.5 Fixed heel to sole
2. Underpinning knowledge and attitudes	2.1 Safe work practices 2.2 First Aid Treatment and Accident Prevention 2.3 Machine setting and maintenance 2.4 Footwear terms 2.5 Anatomy of Shoe 2.6 Types of adhesive 2.7 Types of heel and sole materials 2.8 Types of grinder 2.9 Quality Standard 2.10 5S 2.11 Positive work values (orderliness and being organize, patience, cost, quality and safety consciousness, etc.)
3. Underpinning skills	3.1 Communicating and interacting skills 3.2 Interpreting work ticket 3.3 Operating sole pressing machine 3.4 Applying company quality standards
4. Resource implications	The following resources MUST be provided: 4.1 Workplace with proper lighting and ventilation 4.2 Work ticket 4.3 Materials relevant to the activity 4.4 Tools and equipment appropriate for heel attaching operation
5. Method of assessment	Competency must be assessed through: 5.1 Direct observation/demonstration of the candidate's application of knowledge to tasks and questioning related to underpinning knowledge 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in the actual workplace or in a simulated environment or in TESDA accredited assessment center

UNIT OF COMPETENCY: **PERFORM POLISHING OPERATION**
UNIT CODE: **FWR744324**
UNIT DESCRIPTOR: This unit covers knowledge, skills and attitudes in performing the polishing operation.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Prepare work pieces	1.1 ***Work pieces*** are repaired and cleaned before polishing in accordance with standard operating procedures. 1.2 ***Polishing materials and equipment*** are prepared in accordance with standard operating procedures.
2. Apply first coating	2.1 Chemicals used are selected and applied to the shoe in accordance with manufacturer's manual. 2.2 Cream filler is applied to shoe upper according to company requirements. 2.3 Drying time is followed according to the company requirements.
3. Perform cotton brushing	3.1 Cotton brushing operation is done according to ***types and finishes of leather.*** 3.2 Uppers are free from ***damage***, patches and discoloration.
4. Apply final coating	4.1 Topcoat chemicals are applied evenly on shoe uppers in accordance with company standard. 4.2 Buffing is done following the shoe contours. 4.3 Shoe uppers are free from discoloration after mop brushing. 4.4 Damage are recorded in the work ticket as per standard operating procedures
5. Perform final polishing and brushing of shoes.	5.1 Shoes are arranged to the flow of operation for final polishing. 5.2 Final brushing is done in accordance with standard operating procedures. 5.3 Damaged shoes are segregated and repaired according to standard operating procedures.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Complete shoe	1.1 Vamp 1.2 Toe Cap 1.3 Wing Cap 1.4 Quarters 1.5 Counter 1.6 Tongue 1.7 Back strap 1.8 Eyelet Facing/ Eye stay 1.9 Straps 1.10 Collar 1.11 Sole 1.12 Heel 1.13 Sole edging
2. Polishing materials	2.1 Rug 2.2 Top coat/gloss 2.3 Upper cleaning materials 2.4 Faking crayons 2.5 Shoe polisher 2.6 Carnauba wax 2.7 Finishing oil 2.8 Safety gloves 2.9 Crepe rubber 2.10 Insole iron 2.11 Water cleaner
3. Polishing equipment	3.1 Cotton roller 3.2 Spray gun 3.3 Dryer 3.4 Compressor
4. Damages visible on the polished shoe	4.1 upper discoloration 4.2 knife cuts 4.3 poor top coat application 4.4 uneven brushing 4.5 burned out sole
5. Leather types and finishes	5.1 Full grain 5.2 Semi-aniline 5.3 Brush off 5.4 Oil Pull-up 5.5 Nappa 5.6 Crazy horse 5.7 Nubuck

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Applied first coating 1.2 Performed cotton brushing 1.3 Applied final coating 1.4 Performed final shoe polishing and brushing 1.5 Segregated and reported damage shoes
2. Underpinning knowledge and attitude	2.1 Safe work practices 2.2 First aid treatment 2.3 Safe handling of tools and materials 2.4 Footwear terms 2.5 Types of polishing materials, tools and equipment 2.6 Types and characteristics of leather shoes 2.7 Defects of leather 2.8 Positive work values (being organize, cost, quality and safety consciousness, patience, attention to details, etc.)
3. Underpinning skills	3.1 Identifying leather defects and variation in grains and shades 3.2 Polishing techniques 3.3 Communicating skills 3.4 Interpreting work ticket.
4. Resource implications	The following resources MUST be provided: 4.1 Workplace with proper lighting and ventilation 4.2 Work ticket 4.3 Materials relevant to the activity 4.4 Tools and equipment appropriate for polishing.
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation / demonstration of the candidate's application of knowledge to tasks and questioning related to underpinning knowledge 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in the actual workplace or in a simulation environment or in TESDA accredited assessment center

UNIT OF COMPETENCY: **PERFORM SOCK ATTACHMENT & CLEANING OPERATION**

UNIT CODE: **FWR744325**

UNIT DESCRIPTOR: This unit covers knowledge, skills and attitude required in performing sock attachment and cleaning of de-lasted footwear..

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Prepare work pieces	1.1 Work pieces are selected and identified in accordance with the job specifications. 1.2 Work pieces are arranged/positioned in accordance with standard operating procedures.
2. Attach sock into the shoe	2.1 Sock lining (and shoe lace, if necessary) is attached depending on design and style of shoe. 2.2 Brand name ***labels*** are attached in accordance with company procedures.
3. Clean the shoes	3.1 ***Cleaning*** materials are selected and applied according to materials specifications. 3.2 Shoes are cleaned in accordance with company procedures.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Label	1.1 Printing 1.2 Embroidering 1.3 Stitching 1.4 Stickers 1.5 Embossing
2. Cleaning	2.1 Wet 2.2 Dry

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Attached company label to sock lining (and shoe laces, if necessary) 1.2 Cleaned shoes in accordance with company procedures
2. Underpinning knowledge and attitude	2.1 Safe work practices 2.2 First Aid Treatment 2.3 Safe handling of tools and materials. 2.4 Basic product knowledge 2.5 Familiar with footwear terms 2.6 Materials, tools and equipment used for attaching sock lining (and shoe lace, if necessary) 2.7 Knowledge on different footwear cleaning procedures 2.8 Positive work values (orderliness and being organize, cost, quality and safety conscious, patience, etc.)
3. Underpinning skills	3.1 Communicating and interacting skills 3.2 Interpreting work ticket. 3.3 Cleaning of shoes
4. Resource implications	The following resources MUST be provided: 4.1 Workplace with proper lighting and ventilation 4.2 Work ticket 4.3 Materials relevant to the proposed activity 4.4 Tools and equipment appropriate for sole attachment and packing
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation/demonstration of the candidate's application of knowledge to tasks and questioning related to underpinning knowledge 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in the actual workplace or in a simulated environment or in any TESDA accredited assessment center

UNIT OF COMPETENCY	**PERFORM QUALITY CHECKING, REPAIR AND PACKING OF DE-LASTED SHOES**
UNIT CODE:	**FWR744326**
UNIT DESCRIPTOR:	This unit covers knowledge, skills and attitude required in performing quality checking, repairing and packing of de – lasted footwear.

ELEMENT	PERFORMANCE CRITERIA ***Italicized terms*** are elaborated in the Range of Variables
1. Inspect shoes for final dispatch	1.1 Shoes are inspected in accordance with company procedures/requirements. 1.2 ***Minor shoe defects/damages*** are identified and segregated in accordance with standard operating procedures. 1.3 Inspection report accomplished is 100% accurate.
2. Repair shoe defects/damages	2.1 Shoe defects/damages are repaired according to company procedures. 2.2 ***Repairing tools and equipment*** are cleaned and stored in accordance with standard operating procedures. 2.3 Repair reports are accomplished as per company procedures.
3. Pack shoes in boxes	3.1 Shoes are packed with ***packaging materials*** in accordance with standard operating procedures. 3.2 Boxes are assembled and ***labeled*** in accordance with company requirements. 3.3 Dehumidifying agent is put in boxes according to company procedures. 3.4 Shoe boxes are bundled and marked according to color, stock and destination.

RANGE OF VARIABLES

VARIABLE	RANGE
1. Minor defects/ damages	1.1 For Uppers 1.1.1 Scratches 1.1.2 Veins 1.1.3 Minor seam bursting 1.1.4 Creases 1.1.5 Knife cuts 1.1.6 Over scouring 1.1.7 Discoloration 1.1.8 Needle scratches 1.1.9 Brand marks 1.1.10 Poor folding 1.1.11 Poor stitching 1.1.12 Excess adhesive 1.1.13 Stitch-marking lines 1.2 For Bottom 1.2.1 Discoloration due to: scratches, burn marks, cuts, dents 1.2.2 Deformities
2. Repairing tools and equipment	2.1 Scissors 2.2 Cutter 2.3 Safety gloves 2.4 Crepe rubber 2.5 Ironing rod 2.6 Ironing board 2.7 Repairing Materials 2.7.1 Faking/repairing crayons 2.7.2 Dyes 2.7.3 Cyanoacrylate (Glue or Adhesives) 2.7.4 Wax 2.7.5 Sandpaper 2.7.6 Liquid detergent 2.7.7 Rags 2.7.8 Tap water 2.7.9 Kerosene
3 Packaging materials	3.1 Tissue paper 3.2 Shoe pad 3.3 Silica gel 3.4 Shoe box 3.5 Shoe tags 3.6 Labels
4 Label	4.1 Barcode 4.2 Stock number 4.3 Size 4.4 Color 4.5 price

EVIDENCE GUIDE

1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Inspected shoes 1.2 Repaired minor defects/damages to shoes 1.3 Accomplished reports of inspected and repaired shoes 1.4 Packed shoes in boxes
2. Underpinning knowledge and attitude	2.1 Safe work practices 2.2 First Aid Treatment 2.3 Basic product knowledge 2.4 Familiar with footwear terms 2.5 Quality standards 2.6 Tools and equipment for repairing and packing of shoes 2.7 Shoe repair procedures 2.8 Different methods of packaging shoes 2.9 Positive work values (orderliness and being organize, cost, quality and safety consciousness, patience, etc.)
3. Underpinning skills	3.1 Communicating skills 3.2 Interpreting work ticket 3.3 Handling and operating tools and equipment for repairing shoes
4. Resource implications	The following resources MUST be provided: 4.1 Workplace with proper lighting and ventilation 4.2 Work ticket 4.3 Materials relevant to the activity 4.4 Tools and equipment appropriate for repairing.
5. Methods of assessment	Competency MUST be assessed through: 5.1 Direct observation/demonstration of the candidate's application of knowledge to tasks and questioning related to underpinning knowledge 5.2 Portfolio
6. Context for assessment	6.1 Competency may be assessed individually in the actual workplace or in a simulated environment or in TESDA accredited assessment center

SECTION 3 TRAINING STANDARDS

These guidelines are set to provide the Technical and Vocational Education and Training (TVET) providers with information and other important requirements to consider when designing training programs for Footwear Making NC II.

3.1 CURRICULUM DESIGN

Course Title: **FOOTWEAR MAKING** NC Level: **NC II**

Nominal Training Hours: 18 hours (Basic)
24 hours (Common)
640 hours (Core)

Course Description:

This course is designed to enhance the knowledge, skills and attitudes of a footwear maker in accordance with industry standards. It covers core competencies such as check cut upper and lining components, perform blocking and crimping operation, perform skiving operations, perform leather splitting, perform machine perforating and gimping operation, perform folding operation, perform stitching operation on upper and/or lining components, perform hand stitching operation, prepare upper for hand lasting, perform basic hand lasting, attach insole by machine, perform puff and stiffener activation, perform basic machine lasting, perform chilling operation, perform pre-bonding operation, perform bonding operation, perform heel attaching operation, perform sock attachment and cleaning operation, perform polishing operation, perform quality check, repair and packaging of de-lasted shoes.

To obtain this, all units prescribed for this qualification must be achieved.

BASIC COMPETENCIES

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1 Participate in workplace communication	1.1 Obtain and convey workplace information. 1.2 Complete relevant work related documents. 1.3 Participate in workplace meeting and discussion.	• Group discussion • Interaction	• Demonstration • Observation • Interviews/ questioning
2. Work in a team environment	2.1 Describe and identify team role and responsibility in a team. 2.2 Describe work as a team	• Discussion • Interaction	• Demonstration • Observation • Interviews/ questioning

3. Practice career professionalism	3.1 Integrate personal objectives with organizational goals. 3.2 Set and meet work priorities. 3.3 Maintain professional growth	• Discussion • Interaction	• Demonstration • Observation • Interviews/ questioning
4. Practice occupational health and safety	4.1 Evaluate hazard and risks 4.2 Control hazards and risks 4.3 Maintain occupational health and safety awareness	• Discussion • Plant tour • Symposium	• Observation • Interview

COMMON COMPETENCIES

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1. Apply footwear production practices and principles	1.5 Apply knowledge of footwear products and systems in the workplace 1.6 Demonstrate productive work practices	Group discussion Interaction	Observation Demonstration Interviews/ Questioning
2. Carry out measurements and calculations	2.1 Obtain measurements 2.2 Perform simple calculations 2.3 Estimate approximate quantities	Group discussion Interaction	Observation Demonstration Interviews/ Questioning
3. Use & care for hand and power tools	3.1 Select appropriate tools for work 3.2 Use hand and power tools 3.3 Follow safety and hazard control procedures 3.4 Care for hand and power tools	Group discussion Interaction	Observation Demonstration Interviews/ Questioning

4. Set-up and operate machines	4.1 Set machines 4.2 Conduct sample run 4.3 Test machine output 4.4 Re-adjust machine setting to meet requirements 4.5 Maintain records	Group discussion Interaction	Observation Demonstration Interviews/ Questioning
5. Perform basic maintenance	5.1 Perform machine adjustments 5.2 Clean and operate machine 5.3 Check machine operation	Group discussion Interaction	Observation Demonstration Interviews/ Questioning
6. Apply quality standard	6.1 Assess own work 6.2 Assess quality of received components parts 6.3 Record information 6.4 Study causes of quality	Group discussion Interaction	Observation Demonstration Interviews/ Questioning

CORE COMPETENCIES

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
1. Check cut upper and lining components	1.1 Inspect received cut upper and lining components. 1.2 Segregate cut upper and lining component 1.3 Bundle cut upper and lining components	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
2. Perform blocking /crimping operation	2.1 Prepare machine and upper for blocking 2.2 Perform blocking operations 2.3 Perform /trimming of vamps	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning
3. Perform Skiving operations	3.1 Perform machine procedures 3.2 Skive components 3.3 Perform machine maintenance	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning
4. Perform leather splitting	4.1 Perform machine setting procedures 4.2 Perform splitting operations	Discussion Demonstration	• Observation with oral questioning Demonstration with oral questioning
5. Perform machine perforating and gimping operation	5.1 Perform machine setting 5.2 Perform perforating operation 5.3 Perform gimping operation 5.4 Perform machine maintenance	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning
6. Perform folding operation	6.1 Prepare the components for folding 6.2 Fold components	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning
7. Perform stitching operation on upper and/or lining components	7.1 Prepare machine for stitching 7.2 Stitch upper and /or lining components	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
8. Perform hand stitching operation	8.1 Prepare shoe upper 8.2 Select hand stitching tools and materials 8.3 Perform hand stitching	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning
9. Prepare upper for hand lasting	9.1 Prepare toe puff and stiffeners. 9.2 Attach toe puff and stiffeners to shoe upper. 9.3 Prepare and attach insole to shoe last using tacks. 9.4 Position shoe upper to shoe last.	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning
10. Perform basic hand lasting	10.1 Attach upper to insole/last 10.2 Apply adhesive to upper components and insole 10.3 Carry out toe lasting 10.4 Perform seat and side lasting 10.5 Flatten upper to feather edge	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning
11. Attach insole by machine	11.1 Set insole attaching machine 11.2 Attach insole	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning
12. Perform toe puff and stiffener activation	12.1 Prepare machine 12.2 Activate toe puff/stiffeners 12.3 Prepare workpieces to transport for the next stage.	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
13. Perform basic machine lasting	13.1 Attach shoe upper to shoe last with insole. 13.2 Set machine for lasting 13.3 Carry-out toe lasting 13.4 Perform seat and side lasting.	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning
14. Perform chilling operation	14.1 Set chilling machine 14.2 Monitor chilling operation	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning
15 Perform pre-bonding operation	15.1 Perform roughing and scouring 15.2 Perform bottom cementing and filler attachment 15.3 Perform sole wiping and cementing	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning
16 Perform bonding operation	16.1 Perform sole attaching and pressing 16.2. Perform edge cleaning operations 16.3. Perform de-lasting and inspection of shoes	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning
17 Perform heel attaching operation	17.1 Prepare workpieces 17.2 Attach heel to sole 17.3 Fix heel to sole	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning

Unit of Competency	Learning Outcomes	Methodology	Assessment Approach
18. Perform polishing operation	18.1 Prepare shoe, and polishing materials (chemicals) 18.2 Apply polishing chemicals 18.3 Perform polishing and brushing	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning
19. Perform sock attachment and cleaning operation	19.1 Prepare and attach sock lining in the shoes. 19.2 Clean shoes	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning
20. Perform quality checking, repairing and packaging of de-lasted shoes.	20.1 Inspect shoes for final dispatch 20.2 Repair (minor) shoe defects 20.3 Pack shoes on their appropriate boxes	Discussion Demonstration	• Observation with oral questioning • Demonstration with oral questioning

3.2 TRAINING DELIVERY

The delivery of training should adhere to the design of the curriculum. Delivery should be guided by the 10 basic principles of competency-based TVET.

- The training is based on curriculum developed from the competency standards;
- Learning is modular in its structure;
- Training delivery is individualized and self-paced;
- Training is based on work that must be performed;
- Training materials are directly related to the competency standards and the curriculum modules;
- Assessment is based in the collection of evidence of the performance of work to the industry required standard;
- Training is based both on and off-the-job components;
- Allows for recognition of prior learning (RPL) or current competencies;
- Training allows for multiple entry and exit; and
- Approved training programs are Nationally Accredited

The competency-based TVET system recognizes various types of delivery modes, both on and off-the-job as long as the learning is driven by the competency standards specified by the industry. The following training modalities may be adopted when designing training programs:

- The dualized mode of training delivery is preferred and recommended. Thus programs would contain both in-school and in-industry training or fieldwork components. Details can be referred to the Dual Training System (DTS) Implementing Rules and Regulations.

- Modular/self-paced learning is a competency-based training modality wherein the trainee is allowed to progress at his own pace. The trainer just facilitates the training delivery.

- Peer teaching/mentoring is a training modality wherein fast learners are given the opportunity to assist the slow learners.

- Supervised industry training or on-the-job training is an approach in training designed to enhance the knowledge and skills of the trainee through actual experience in the workplace to acquire specific competencies prescribed in the training regulations.

- Distance learning is a formal education process in which majority of the instruction occurs when the students and instructor are not in the same place. Distance learning may employ correspondence study, audio, video or computer technologies.

3.3 TRAINEE ENTRY REQUIREMENTS

Trainees or students wishing to gain entry into this course should possess the following requirements:

- can communicate both orally and in written
- physically and mentally fit
- with good moral character
- can perform basic mathematical computation

This list does not include specific institutional requirements such as educational attainment, appropriate work experience, and others that may be required of the trainees by the school of training center delivering the TVET program.

3.4 LIST OF TOOLS,EQUIPMENT AND MATERIALS

Recommended list of tools, equipment and materials for the training of 25 trainees for.

TOOLS		EQUIPMENT		MATERIAL	
Qty.	Description	Qty.	Description	Qty.	Description
25 pcs.	Trimming Scissors	5 units	Indust'l. sewing machine	25 packs	Needles
2 pcs.	Ball rubbing tool	1 unit	** Skiving machine	5 cones	Thread
1 pc.	Honing stick	2 units	Working table (1X 3 m.)	25 pairs	Cut upper & lining Components (leather)
1 pc	Automatic Numbering machine (manual)	1 unit	**Perforating/gimping machine	25 pcs.	Plastic tray
25 pcs.	Scissors	1 unit	**Splitting machine	25 pcs.	Marble slabs
25 pcs.	Awl	1 unit	**Blocking/crimping machine	25 pcs.	Protective mask
25 pcs.	Folding hammer	1 unit	**Toe lasting machine/accessories	1 gal.	Adhesive
25 pcs.	Adhesive brush	1 unit	**Seat lasting machine/accessories	1 roll	Reinforcement tape
1 set	Diamond puncher	1 unit	Roughing machine	3 sheets	Solvent based stiffeners
1 set	Triangle puncher	1 unit	Pressing machine	1 gal.	solvent
1 set	Round puncher	1 unit	Shoe maker table	1 gal.	adhesive
25 pcs.	Shoe hammer	1 unit	Shoe rack	50 pcs	Stitching needle (pangkustura)
5 pcs.	Spring divider	1 unit	Stamping machine (with accessories)	5 pcs.	Beeswax (pagkit)
25 pcs.	Tacks lifter/puller	1 unit	Polishing machine	10 spool	Cotton thread
25 pcs.	Cutting knife	1 unit	Spray gun	3 sheets	Sliced foam
25 pcs.	Cutting board	1 unit	Air compressor	3 sheets	Insole board
25 pcs.	Awl	1 unit	Cotton roller	1 roll	Plastic
25 pcs.	Lasting pincer			1 gal.	primer
25 pcs.	Adhesive brush			1 kl.	Last powder
25	Plastic box			25 pcs	Silver pen

pcs.					
5 pcs.	Shoe iron			1 box	Nail (heel)
25 pcs.	Adhesive brush			75 pairs	Shoe upper
				25 pairs	Shoe last
25 pcs.	Adhesive dispenser			3 rolls each	Silver and gold foil
				1 gal.	adhesive
				1 sheet	4 mm thick foam
				5 pcs.	Polishing wax
				2 kls.	rug
				5 pcs.	Shoe polisher
				5 pcs.	Crepe rubber
				25 pcs.	Safety gloves
				2 qrtz.	Finishing oil
				1 box	Faking crayon (assorted color)

** Machine/Equipment may be available at workshops of industry partners.

3.5 TRAINING FACILITIES
FOOTWEAR MAKING NC – II

The workshop must be of concrete structure. Based on class size of 25 students/trainees the space requirements for the teaching/learning and circulation areas are as follows:

TEACHING/LEARNING AREAS	SIZE IN METERS	AREA IN SQ. METERS	QTY	TOTAL AREA IN SQ. METERS
Shop area	6 **X** 10	60		60
Tool Room & S/M Storage Area	2 **X** 4	8		8
Learning Resource Area	5 **X** 9	45		45
Wash Area /Comfort Room *(male & female)*	2.5 **X** 4	10		10
Total				123
Circulation Area**				37
Total Workshop Area				**160**

***** Area requirement is equivalent to 30% of the total teaching/learning areas***

3.6 TRAINERS QUALIFICATIONS FOR FOOTWEAR MAKING NC II

TRAINER QUALIFICATION (TQ II)

To qualify as trainer for footwear making NC II, the person must:

- be a holder of NC II
- have undergone training on Training Methodology II (TM II)
- be physically and mentally fit
- * have at least 1 year job/industry experience
- be a civil service eligible (for government position or appropriate professional license issued by the Professional Regulatory Commission)

* Optional. Only when required by the hiring institution

Reference: TESDA Board Resolution No. 2004 03

3.7 INSTITUTIONAL ASSESSMENT

Institutional assessment is undertaken by trainees to determine their achievement of units of competency. A certificate of achievement is issued for each unit of competency.

SECTION 4 NATIONAL ASSESSMENT AND CERTIFICATION ARRANGEMENTS

4.1 To attain the National Qualification of Footwear Making NC II, the candidate must demonstrate competence through project-type assessment covering all the units listed in Section 1. Successful candidates shall be awarded National Certificate signed by the TESDA Director General

4.2 The qualification of Footwear Making NC II may be attained through:

4.2.1 Accumulation of Certificates of Competency (COCs) in all the following areas:

4.2.1.1 Assemble Footwear Upper Components
- 4.2.1.1.1 Check cut upper and lining components
- 4.2.1.1.2 Perform blocking/crimping
- 4.2.1.1.3 Perform skiving operations
- 4.2.1.1.4 Perform upper leather splitting operation
- 4.2.1.1.5 Perform machine perforating and gimping operation
- 4.2.1.1.6 Perform folding operation
- 4.2.1.1.7 Perform stitching operation on upper and/or lining components
- 4.2.1.1.8 Perform hand stitching operation

4.2.1.2 Perform Footwear Lasting by Machine and by Hand
- 4.2.1.2.1 Prepare uppers for hand lasting
- 4.2.1.2.2 Perform basic hand lasting
- 4.2.1.2.3 Attach insole by machine
- 4.2.1.2.4 Perform toe-puff and stiffener activation
- 4.2.1.2.5 Perform basic machine lasting
- 4.2.1.2.6 Perform chilling operation
- 4.2.1.2.7 Perform pre-bonding operations
- 4.2.1.2.8 Perform bonding operations
- 4.2.1.2.9 Perform heel attaching operations

4.2.1.3 Perform Footwear Finishing Operations
- 4.2.1.3.1 Perform sock attachment and cleaning operation
- 4.2.1.3.2 Perform polishing operation
- 4.2.1.3.3 Perform quality checking, repairing and packaging of de-lasted shoes

Successful candidates shall be awarded Certificates of Competency (COC).

4.2.2 Demonstration of competence through project-type assessment covering all the required units of qualification.

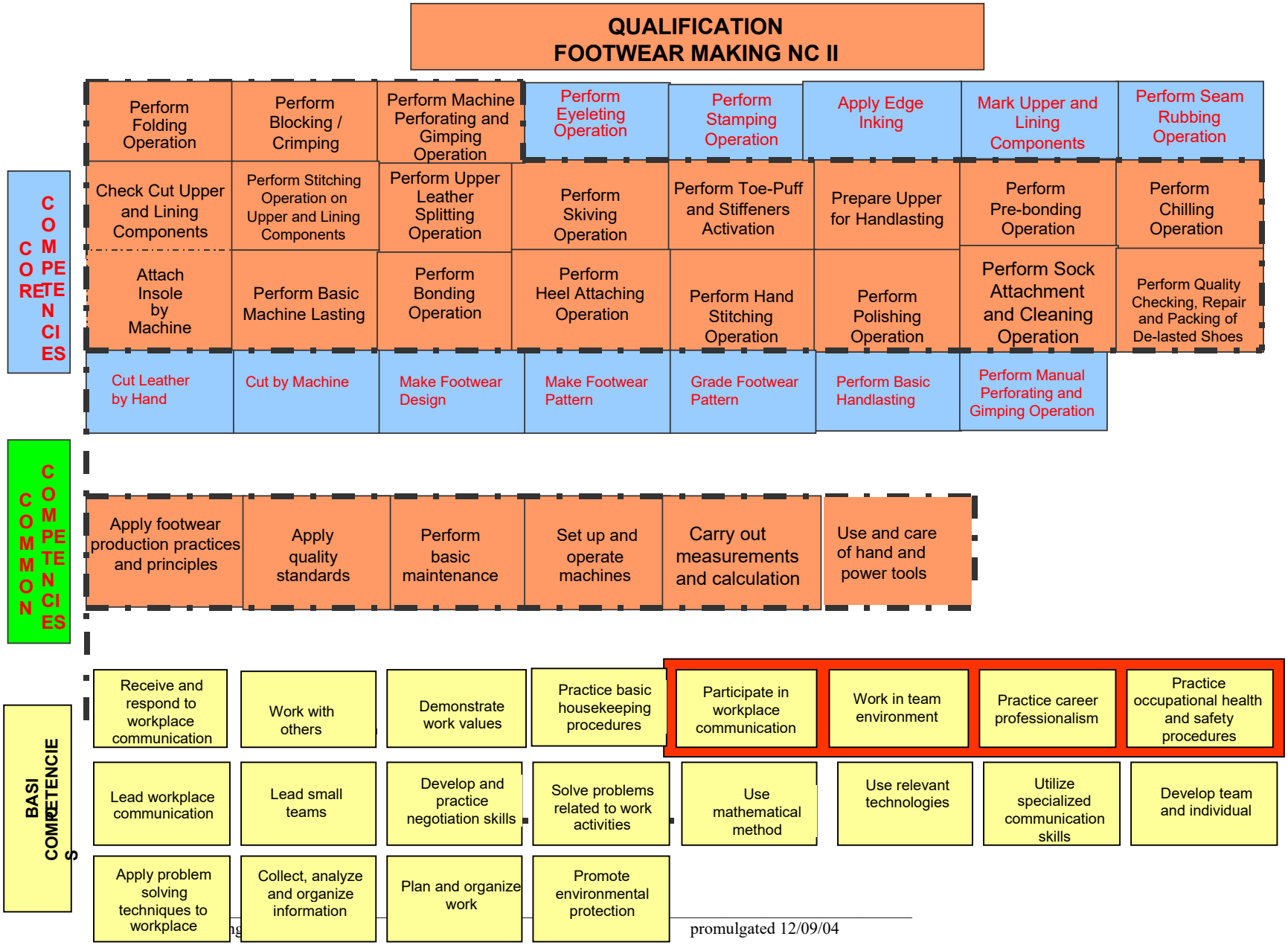
4.3 Assessment shall focus on the core units of competency. The basic and common units shall be integrated or assessed concurrently with the core units.

4.4 The following are qualified to apply for assessment and certification:

4.4.1 Graduates of formal, non-formal and informal including enterprise-based training programs.

4.4.2 Experienced workers (wage employed or self-employed)

4.5 The guidelines on assessment and certification are discussed in detail in the "Procedures Manual on Assessment and Certification" and "Guidelines on the Implementation of the Philippine TVET Qualification and Certification System (PTQCS)".


QUALIFICATION
FOOTWEAR MAKING NC II
CORE COMPETENCIES
Perform Folding Operation
Perform Blocking / Crimping
Perform Machine Perforating and Gimping Operation
Perform Eyeleting Operation
Perform Stamping Operation
Apply Edge Inking
Mark Upper and Lining Components
Perform Seam Rubbing Operation
Check Cut Upper and Lining Components
Perform Stitching Operation on Upper and Lining Components
Perform Upper Leather Splitting Operation
Perform Skiving Operation
Perform Toe-Puff and Stiffeners Activation
Prepare Upper for Handlasting
Perform Pre-bonding Operation
Perform Chilling Operation
Attach Insole by Machine
Perform Basic Machine Lasting
Perform Bonding Operation
Perform Heel Attaching Operation
Perform Hand Stitching Operation
Perform Polishing Operation
Perform Sock Attachment and Cleaning Operation
Perform Quality Checking, Repair and Packing of De-lasted Shoes
Cut Leather by Hand
Cut by Machine
Make Footwear Design
Make Footwear Pattern
Grade Footwear Pattern
Perform Basic Handlasting
Perform Manual Perforating and Gimping Operation
COMMON COMPETENCIES
Apply footwear production practices and principles
Apply quality standards
Perform basic maintenance
Set up and operate machines
Carry out measurements and calculation
Use and care of hand and power tools
BASIC COMPETENCIES
Receive and respond to workplace communication
Work with others
Demonstrate work values
Practice basic housekeeping procedures
Participate in workplace communication
Work in team environment
Practice career professionalism
Practice occupational health and safety procedures
Lead workplace communication
Lead small teams
Develop and practice negotiation skills
Solve problems related to work activities
Use mathematical method
Use relevant technologies
Utilize specialized communication skills
Develop team and individual
Apply problem solving techniques to workplace
Collect, analyze and organize information
Plan and organize work
Promote environmental protection

DEFINITION OF TERMS

Attaching	is the temporary joining together of components using an adhesive until they can be stitched
Bottom	the sole, insole, heel of the shoe
Blocking/Crimping	performed on a high fronted vamp to improve shape and fit and to achieve greater curvature of upper
Bonding	Attaching of lasted sole to upper using adhesives
Counter	refers to a component stitched to the rear of the quarters to give added stiffness specially in brogue shoes.
De-lasting	the process of removing the finished shoe from the last after sole attaching or finishing
Eyelet	a ring of metal or other material inserted in the shoe upper to provide a durable ring for lace holes
Folding	an upper edge treatment where a narrow margin of the edge is folded over and secured by adhesive
Gimping	a decorative margin like a row of saw teeth cut into an upper component where it overlays another component, as in a brogue shoe
Heel	seat part of the footwear bottom, it may either be attached separately or may be an integral part of the sole and may be of various types (Spanish, Louis, wedge, etc.) The heel tip/top lift is an integral part of the heel.
Insole	a structural sole member of the sole between the foot and the outsole. May be of leather, fiberboard, leather board or synthetic material of various kinds. Its moisture absorbent qualities are considered to be important for foot health and comfort
Last	the generalized approximate foot form or mould on which a boot or shoe is made
Lasting	the shaping of the upper tightly to the contour of the last and pulling and stretching the upper to avail bunches or wrinkles by machine
Lining	the inside material used under the upper and generally cut to the same shape of upper, giving certain allowances. Linings are made of leather, fabric or man-made materials
Seam Rubbing	the process of flattening or rubbing down of back seam of components to avoid ridges/impressions on the upper

Skiving	used to reduce edge substance to create smooth joining between two components
Sole	layer of materials that covers the bottom of shoe and is the walking surface of the shoe
Splitting	dividing an upper or bottom component into two or more parts by cutting it through its thickness parallel to the surface
Stamping	used for identification during manufacturing. Necessary to provide information without detracting from appearance of footwear
Stitching/Closing	is the permanent joining parts together by use of threads
Toe-Puff	stiffening material, usually of impregnated fabric, fiberboard or printed-on plastic, under the toe part of the upper (in between the upper and lining) to help shape retention, appearance and protect the toes.
Upper	is the top part of the shoe including lining, reinforcement and accessories
Vamp	the part of the upper between the toe cap and the quarters, including the toe in the case of capless style subjected to maximum flexing while walking

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