

Occupational Competency Charts

Harmonised Occupational Standards

RFU
IUCEA, KAMPALA, UGANDA
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Introduction and Background Information

The development of the Regional TVET Qualifications Framework (RTQF) and harmonised Occupational Standards (OS) is part of the East Africa Skills for Transformation and Regional Integration Project (EASTRIP), which is funded by the World Bank and the governments of Ethiopia, Kenya, and Tanzania. EASTRIP aims to increase access and improve quality and relevance of TVET programmes offered by selected Regional Flagship TVET Institutes (RFTI) and to promote regional integration. The implementing agencies include 16 RFTI, the Ministry of Labour and Skills in Ethiopia, Ministry of Education in Kenya, Ministry of Education, Science and Technology in Tanzania. The Inter University Council for East Africa (IUCEA) is the Regional Facilitation Unit (RFU) for the project.

The project supports the development of highly specialised TVET programmes as well as industry-recognised short-term certificate level training. It will train technicians and provide training of teachers/trainers at the certificate, diploma, and degree levels, targeting the regional priority sectors: transport, energy, manufacturing, and ICT. The programme development objectives will be achieved through complementary interventions at three distinct levels: institute, national, and regional levels.

EASTRIP aims to benefit different groups of people. These include students enrolled in selected RFTI and their partner institutions (non-project TVET institutes) in the selected countries and across the region, employers and targeted industries who will have access to a skilled workforce matched with their needs and standards, faculty and staff from the selected RFTI whose academic, technical, management, and pedagogical skills needed to be upgraded. They will function in an improved teaching environment with upgraded facilities. Public and private TVET institutes within the Eastern Africa region will have access to a network of specialised trainers, a framework of core curricular competencies, quality assurance standards, and state-of-the-art facilities for up-to-date training of the workforce in priority sectors in the region.

EASTRIP identified an inadequately educated workforce as a major constraint to development in the region. The shortage of specialised TVET skills is particularly acute in transport, energy, manufacturing, including agro-processing, and ICT sectors. Such scarcity has the risk of slowing the region's industrialisation agenda. EASTRIP brings a regional approach to the development of these skills through TVET. The development of highly specialised TVET level-based programmes, as well as industry recognised short-term courses is considered as a way of developing these skills.

The project "Building a Harmonised TVET Qualifications Framework and Regional Harmonised Occupational Standards for East Africa" is part of the agenda outlined above. It has two main elements: the development of RTQF, and the harmonisation of OS (at least 10) based on the RTQF. The key priority areas selected are leather, transport, power/energy and ICT. The competency chart for 44 harmonised occupational standards, which were harmonised based on the RTQF, for the occupations in priority sectors are presented in this book. The detailed OS are on the IUCEA website.

Occupational Standards Chart

This is an occupational competency chart which has been developed for harmonised occupational standards in the EASTRIP selected priority sectors in order to provide the information on unit of competencies in each of the harmonised occupational standards. The detailed harmonised occupational standards are available on the IUCEA website.

Harmonised occupational standards were developed based on the RTQF. An occupational standard is basically a description of an occupation that contains occupational profile and describes the knowledge, skills and attitude (behaviours) (KSA) needed for someone to be competent in the occupation's duties. Occupational standards are key documents to develop curricula, assessment tools, teaching, training and learning materials.

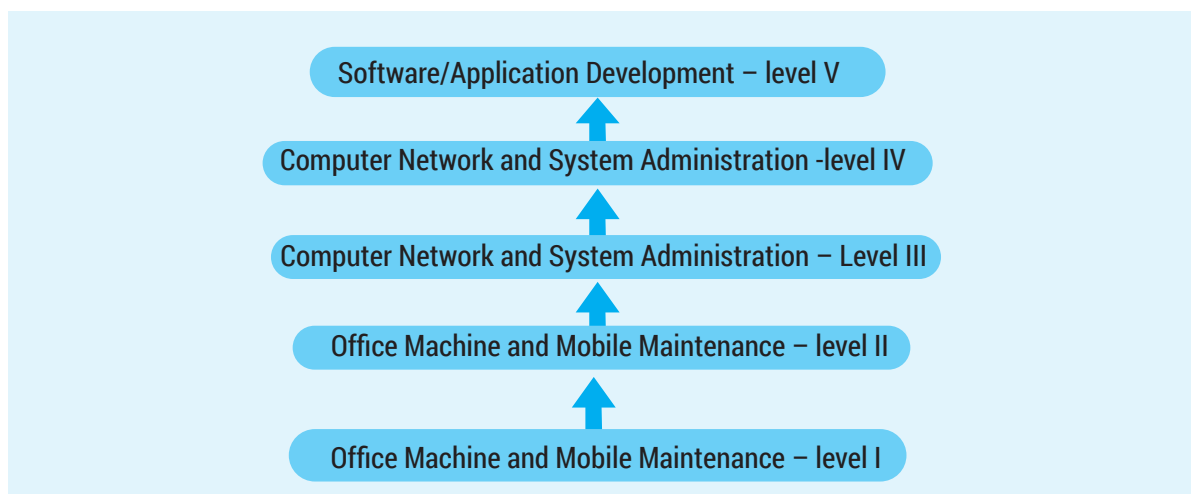
When curricula developers translate occupational standards into curricula in outcome based TVET, those units of competencies are changed into modules or simply module titles. While developing assessment tools, each unit of competencies could be translated into competency assessment projects or demonstration tasks. To initiate the long journey of TVET harmonisation in the region, harmonisation of occupational standards is essential. Hence, through EASTRIP 44 occupational standards were harmonised in four priority sectors:

- a. ICT
- b. Transport
- c. Energy/ Electrical power and
- d. Leather

The implementation of the harmonised occupational standards and the further harmonisation in other many occupational areas need strong determination and leadership foresight at all levels for the socio-economic integration of the region. There is a need to aggressively work together and harmonise the education and training systems so that the ultimate regional integration and then continental agenda of 2063 is realised.

1. Information Communication Technology (ICT)

ICT is one of four key priority sectors of EASTRIP. Based on the RTQF for Ethiopia, Kenya and Tanzania, Levels 1-5 occupational standards for ICT are harmonised as indicated in Figure 1 below. The list of competencies in their categories are provided as well. However, the detailed OS can be found on the IUCEA website.



Level 1

Sector: ICT		Code: ICT-OMM			
Occupation: Office Machine and Mobile Maintenance					
Level of RTQF 1					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L2 GC/COM/2	Apply Numeracy L2 GC/NUM/2	Apply Digital Literacy L2 GC/DL/2	Apply Teamwork L2 GC/TW/2	Apply Employability L2 GC/Emp/2
	Apply Environmental Literacy L2 GC/Env/2	Apply Entrepreneurship L2 GC/Ent/2			
Common Competencies	Apply Basic Electronics L1 ICT/ABE/01/PS/1	Apply Quality Standards L1 ICT/AQS/01/KU/2	Apply 5S Procedures L1 ICT/A5s/01/KU/3	Demonstrate Occupational Safety and Health Practices L1 ICT/DOHs/01/KU/4	
Core Competencies	Assemble and Use Computer Hardware Peripherals L1 ICT/ACHp/01/PS/5	Administer Windows Operating System L1 ICT/MWOs/01/PS/6	Install Computer Application Software L1 ICT/ISA/01/PS/7	Set up and Operate a Personal Computer L1 ICT/SOC/01/PS/8	Apply Microsoft Office Tools L1 ICT/AOT/01/PS/9
	Provide ICT System Support Services L1 ICT/PIS/01/PS/10	Maintain Computer Hardware and Accessories L1 ICT/MCH/01/PS/11			

Level 2

Sector: ICT					Code: ICT-OMM
Occupation: Office Machine and Mobile Maintenance					
Level of RTQF 2					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L2 GC/COM/2	Apply Numeracy L2 GC/NUM/2	Apply Digital Literacy L2 GC/DL/2	Apply Teamwork L2 GC/TW/2	Apply Employability L2 GC/Emp/2
	Apply Environmental Literacy L2 GC/Env/2	Apply Entrepreneurship L2 GC/Ent/2			
Common Competencies	Maintain Electronic Circuits of Computer Devices ICT/MECd/02/PS/01	Demonstrate Occupational Health and Safety Practices ICT/DOHs/02/KU/2	Apply Continuous Improvement Processes (Kaizen) ICT/ACIp/02/KU/3		
Core Competencies	Maintain Desktop Computer Components L2 ICT/MCC/02/PS/2	Install Computer Application Software L2 ICT/ICAs/02/PS/3	Maintain Printers and Scanners L2 ICT/MPS/02/PS/4	Manage Laptop and Portable Device L2 ICT/MLPd/02/PS/5	Explore Mobile Phone Functions L2 ICT/EMPf/02/PS/6
	Diagnose and Repair Mobile Phone Faults L2 ICT/DRMp/02/PS/7	Document Final Results of User Problem and Operational Procedure L2 ICT/DUOp/02/PS/8	Manage Computer Security Threats L2 ICT/MCS/02/PS/9	Maintain Inventories of ICT Equipment, Software and Documentation L2 ICT/MESd/02/PS/10	

Level 3

Sector: ICT – NW						Code: ICT- NWA
Occupation: Computer Network and System Administration						
Level of RTQF 3						
Chart of Competency Units and Codes:						
Generic Competencies	Apply Communication L3 GC/COM/3	Apply Numeracy L3 GC/NUM/3	Apply Digital Literacy L3 GC/DL/3	Apply Teamwork L3 GC/TW/3	Apply Employability L3 GC/Emp/3	
	Apply Environmental Literacy L3 GC/ Env/3	Apply Entrepreneurship L3 GC/Ent/3				
Common Competencies	Apply Quality Control ICT/AQS/03/ KU/1	Maintain Quality System and Continuous Improvement Processes (Kaizen) ICT/CIPk/03/KU/2	Demonstrate Occupational Safety and Health Practices ICT/DOHs/03/ KU/3			
Core Competencies	Create Network Technical Documentation on Business Requirements ICT/CTD/03/ PS/1	Connect and Setup Computer Network Devices ICT/CSN/03/ PS/2	Configure Computer Network Active Devices ICT/CND/03/ PS/3	Monitor and Administer Network System Security ICT/CNTd/03/ PS/4	Identify and Resolve Network Problems ICT/RNP/03/ PS/5	
	Provide First Level Remote Help Desk ICT/PRH/03/ PS/6	Conduct/Facilitate User Training ICT/CUT/03/PS/07				

Level 4

Sector: ICT – NW					Code: ICT- NWA
Occupation: Computer Network and System Administration					
Level of RTQF 4					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L4 GC/COM/4	Apply Digital Literacy L4 GC/DL/4	Apply Employability L4 GC/Emp/4	Apply Environmental Literacy L4 GC/Env/4	Apply Entrepreneurship L4 GC/Ent/4
Common Competencies	Establish Quality Standards ICT/EQS/04/KU/1	Manage Continuous Improvement System ICT/MCIs/04/KU/2	Demonstrate Occupational Safety and Health Practices ICT/DOHs/04/KU/3		
Core Competencies	Plan and Organise Work ICT/POW/04/PS/1	Assist with Policy Development for Client Support ICT/APD/04/PS/2	Migrate to New Technology ICT/MNT/04/PS/3	Perform Computer Networking ICT/PCN/04/PS/4	Determine Maintenance Strategy ICT/DMS/04/PS/5

Level 5

Sector: ICT						Code: ICT-SAD
Occupation: Software/Application Development						
Level of RTQF 5						
Chart of Competency Units and Codes:						
Generic Competencies	Apply Communication L5 GC/COM/5	Apply Digital Literacy L5 GC/DL/5	Apply Employability L5 GC/Emp/5	Apply Environmental Literacy L5 GC/ Env/5	Apply Entrepreneurship L5 GC/Ent/5	
Common Competencies	Basics of Computing IT-SAD-5-CIS-1					
Core Competencies	Discrete Mathematical Concepts IT-SAD-5-CIS-2	Demonstrate Programming Concepts IT-SAD-5-CIS-3	Design and Develop Databases IT-SAD-5-CIS-4	Design Algorithms and Data Structures IT-SAD-5-CIS-5	Apply Object-oriented Concepts IT-SAD-5-CIS-6	
	Develop Client-Side Web Applications IT-SAD-5-CIS-7	Develop Server-Side Web Applications IT-SAD-5-CIS-8	Develop Mobile Applications IT-SAD-5-CIS-9	Apply Agile Development Concepts IT-SAD-5-CIS-10	Analyse Software Requirements IT-SAD-5-CIS-11	

2. Transport Sector

2.1. Automotive

The automotive sub-sector within the transport sector is one of EASTRIP's priority areas. Based on the RTQF for Ethiopia, Kenya and Tanzania, Levels 1-5 occupational standards for the automotive sub-sector are harmonised as indicated in Figure 2 below. The list of competencies in their categories are provided as well. However, the detailed OS can be found on the IUCEA website.

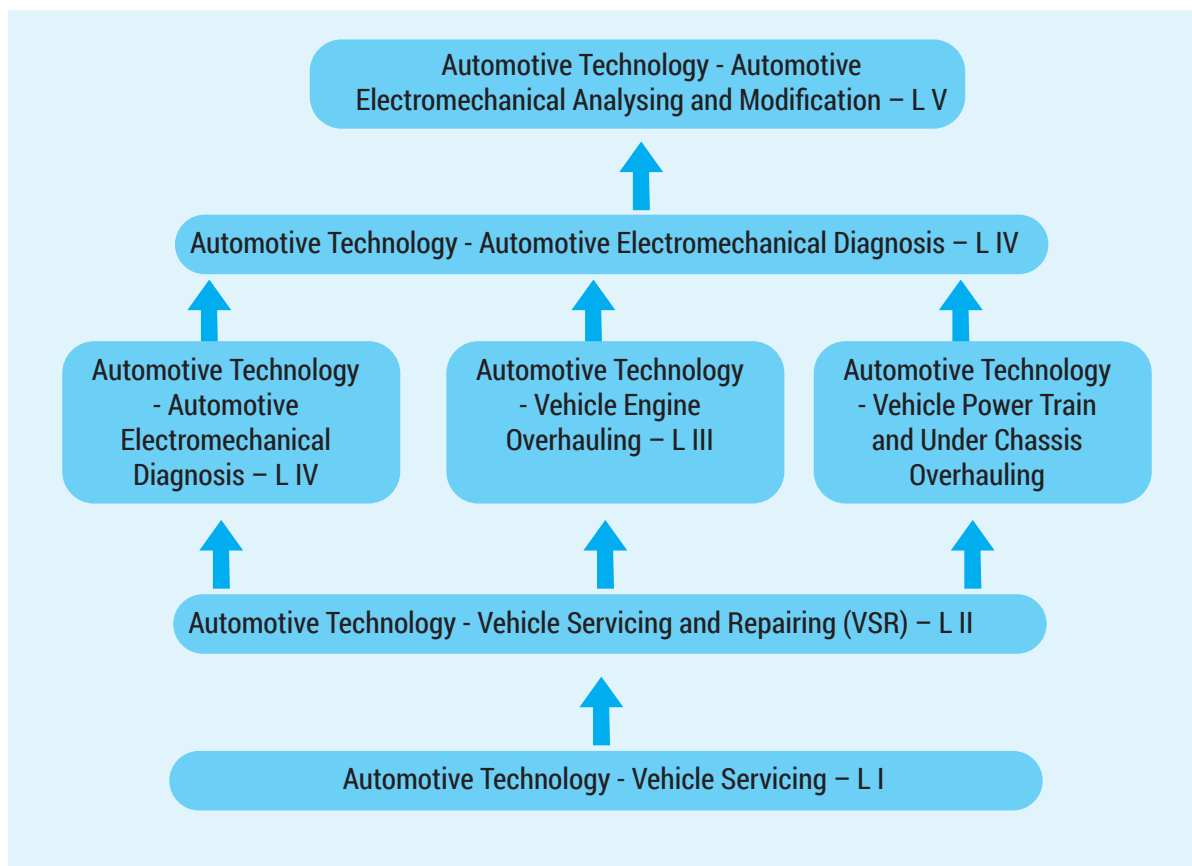


Figure 2: Occupational Standard Chart for Automotive

Level 1

Sector: Transport					Code: TR-ATVS
Occupation: Automotive Technology - Vehicle Servicing					
Level of RTQF 1					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L2 GC/COM/2	Apply Numeracy L2 GC/NUM/2	Apply Digital Literacy L2 GC/DL/2	Apply Teamwork L2 GC/TW/2	Apply Employability L2 GC/EMP/2
	Apply Environmental Literacy L2 GC/ENV/2	Apply Entrepreneurship L2 GC/ENT/2			
Common Competencies	Apply Automotive Workplace Safety Fundamentals TR-ATVS-1-KU-1	Use Tools, Equipment and Measuring Instruments TR-ATVS-1-PS-2	Interpret Working Drawings and Sketches TR-ATVS-1-PS-3	Interpret Workshop Manuals TR-ATVS-1-PS-4	Use a Personal Computer TR-ATVS-1-PS-5
	Apply Automotive Mechanical System Fundamentals TR-ATVS-1-KU-6	Apply Automotive Electrical System Fundamentals TR-ATVS-1-KU-7			
Core Competencies	Maintain Vehicle System Components TR-ATVS-1-PS-8	Perform Minor Surface Maintenance TR-ATVS-1-PS-9	Perform Tires and Wheel Balance Services TR-ATVS-1-PS-10	Perform Bench Work TR-ATVS-1-PS-11	Carry out Vehicle Battery Maintenance TR-ATVS-1-PS-12
	Apply Basic Retrofitting TR-ATVS-1-PS-13	Perform Periodic Maintenance and Service TR-ATVS-1-PS-14			

Level 2

Sector: Transport					Code: TR-ATVSR
Occupation: Automotive Technology - Vehicle Servicing and Repairing (VSR)					
Level of RTQF 2					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L2 GC/COM/2	Apply Numeracy L2 GC/ NUM/2	Apply Digital Literacy L2 GC/ DL/2	Apply Teamwork L2 GC/TW/2	Apply Employability L2 GC/Emp/2
	Apply Environmental Literacy L2 GC/ Env/2	Apply Entrepreneurship L2 GC/Ent/2			
Common Competencies	Develop Business Practice TR-ATVSR-2-KU-1	Standardise and Sustain 3S TR-ATVSR-2-KU-2			
Core Competencies	Use Garage Information System TR-ATVSR-2-PS-3	Assemble Vehicle Components and System Assemblies TR-ATVSR-2-PS-4	Carry out Vehicle Engine Maintenance TR-ATVSR-2-PS-5	Repair Engine Electrical Systems TR-ATVSR-2-PS-6	Repair Vehicle Lighting and Wiring Systems TR-ATVSR-2-PS-7
	Maintain Under Chassis Systems TR-ATVSR-2-PS-8	Refit Vehicle Wheel & Hub Assemblies TR-ATVSR-2-PS-9	Repair Electrical Security & Ancillary Systems TR-ATVSR-2-PS-10	Troubleshoot Basic Automotive Faults Using Troubleshooting OBD II or Adjustment TR-ATVSR-2-PS-11	

Level 3

Sector: Transport						Code: TR-ATVEE
Occupation: Automotive Technology - Vehicle Electrical and Electronic Work						
Level of RTQF: 3						
Chart of Competency Units and codes:						
Generic Competencies	Apply Communication L3 GC/COM/3	Apply Numeracy L3 GC/NUM/3	Apply Digital Literacy L3 GC/DL/3	Apply Teamwork L3 GC/TW/3	Apply Employability L3 GC/Emp/3	
	Apply Environmental Literacy L3 GC/Env/3	Apply Entrepreneurship L3 GC/Ent/3				
Common Competencies	Monitor Implementation of Work Plan/Activities TR-ATVEE-3-PS-1	Apply Quality Control TR-ATVEE-3-KU-2	Prevent MUDA Occurrence TR-ATVEE-3-KU-3			
Core Competencies	Overhaul Engine Electrical Systems TR-ATVEE-3-PS-4	Overhaul Electronic Engine Management Systems TR-ATVEE-3-PS-5	Overhaul Electronic Drive Management Systems TR-ATVEE-3-PS-6	Overhaul Electronic Under Chassis Systems TR-ATVEE-3-PS-7	Overhaul Electrical/Electronic Body Management Systems TR-ATVEE-3-PS-8	
	Maintain Vehicle Heating Ventilation and Air Conditioning Systems TR-ATVEE-3-PS-9	Troubleshoot Major Vehicle Electrical/Electronic Faults TR-ATVEE-3-PS-10	Maintain Electrical and Electronic Units TR-ATVEE-3-PS-11			

Level 3

Sector: Transport					Code: TR-ATVPT
Occupation: Automotive Technology - Vehicle Power Train and Under Chassis Overhauling					
Level of RTQF: 3					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L3 GC/COM/3	Apply Numeracy L3 GC/NUM/3	Apply Digital Literacy L3 GC/DL/3	Apply Teamwork L3 GC/TW/3	Apply Employability L3 GC/Emp/3
	Apply Environmental Literacy L3 GC/Env/3	Apply Entrepreneurship L3 GC/Ent/3			
Common Competencies	Monitor Implementation of Work Plan/ Activities TR-ATVPT-3-PS-1	Apply Quality Control TR-ATVPT-3-KU-2	Prevent MUDA Occurrence TR-ATVPT-3-KU-3		
Core Competencies	Maintain Electronic Drive Management Systems TR-ATVPT-3-PS-4	Overhaul Clutch and Manual Transmissions TR-ATVPT-3-PS-5	Overhaul Automatic Transmissions TR-ATVPT-3-PS-6	Overhaul Final Drive and Drive Lines TR-ATVPT-3-PS-7	
	Overhaul Suspension System TR-ATVPT-3-PS-8	Overhaul Steering System TR-ATVPT-3-PS-9	Overhaul Brake Systems TR-ATVPT-3-PS-10		

Level 3

Sector: Transport					Code: TR-ATVPT
Occupation: Automotive Technology - Vehicle Power Train and Under Chassis Overhauling					
Level of RTQF: 3					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L3 GC/COM/3	Apply Numeracy L3 GC/NUM/3	Apply Digital Literacy L3 GC/DL/3	Apply Teamwork L3 GC/TW/3	Apply Employability L3 GC/Emp/3
	Apply Environmental Literacy L3 GC/Env/3	Apply Entrepreneurship L3 GC/Ent/3			
Common Competencies	Monitor Implementation of Work Plan/Activities TR-ATVPT-3-PS-1	Apply Quality Control TR-ATVPT-3-KU-2	Prevent MUDA Occurrence TR-ATVPT-3-KU-3		
Core Competencies	Maintain Electronic Drive Management Systems TR-ATVPT-3-PS-4	Overhaul Clutch and Manual Transmissions TR-ATVPT-3-PS-5	Overhaul Automatic Transmissions TR-ATVPT-3-PS-6	Overhaul Final Drive and Drive Lines TR-ATVPT-3-PS-7	
	Overhaul Suspension System TR-ATVPT-3-PS-8	Overhaul Steering System TR-ATVPT-3-PS-9	Overhaul Brake Systems TR-ATVPT-3-PS-10		

Level 4

Sector: Transport					Code: TR-ATAED
Occupation: Automotive Technology - Automotive Electromechanical Diagnosis					
Level of RTQF: 4					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L4 GC/COM/4	Apply Digital Literacy L4 GC/DL/4	Apply Employability L4 GC/Emp/4	Apply Environmental Literacy L4 GC/Env/4	Apply Entrepreneurship L4 GC/Ent/4
Common Competencies	Manage Quality Customer Service TR-ATAED-4-CIS-1	Prepare Job Cost Estimates TR-ATAED-4-KTS-2	Implement Work Plan TR-ATAED-4-CIS-3	Apply Emerging Technology TR-ATAED-4-PS-4	Establish Quality Assurance Plan TR-ATAED-4-PS-5
	Apply Problem Solving Techniques and Tools TR-ATAED-4-PS-6				
Core Competencies	Diagnose Complex Faults in Engine Management Systems TR-ATAED-4-PS-7	Diagnose Electronically Controlled Power Management System TR-ATAED-4-PS-8	Diagnose Complex Faults in Under Chassis Systems TR-ATAED-4-PS-9	Diagnose Complex Fault in Body Management System TR-ATAED-4-PS-10	Diagnose Complex Faults in Air Conditioning and HVAC Systems TR-ATAED-4-PS-11
	Diagnose Complex Fault in Electrical and Electronic Safety and Drive Assist Systems TR-ATAED-4-PS-12	Maintain Electrical Components in Hybrid Electric Vehicles TR-ATAED-4-PS-13	Manage Automotive Workshop/ Servicing Operations TR-ATAED-4-CIS-14		

Level 5

Sector: Transport						Code: TR-ATAEM
Occupation: Automotive Technology - Automotive Electromechanical Analysing and Modification						
Level of RTQF: 5						
Chart of Competency Units and Codes:						
Generic Competencies	Apply Communication L5 GC/COM/5	Apply Digital Literacy L5 GC/DL/5	Apply Employability L5 GC/Emp/5	Apply Environmental Literacy L5 GC/Env/5	Apply Entrepreneurship L5 GC/Ent/5	
Common Competencies	Develop Technical Specifications and Procedures TR-ATAEM-5-KU-1	Adapt Work Processes to Emerging Technologies TR-ATAEM-5-KU-2	Monitor Project Costing System TR-ATAEM-5-KU-3	Manage Project Quality TR-ATAEM-5-KU-4	Manage Change and Innovation TR-ATAEM-5-KU-5	
	Manage Continuous Improvement Process (Kaizen) TR-ATAEM-5-KU-6					
Core Competencies	Apply Modifications to Mechanical System Problems TR-ATAEM-5-PS-7	Apply Modifications to Vehicle Hydraulic system Problems TR-ATAEM-5-PS-8	Apply Modifications to Vehicle Pneumatic System Problems TR-ATAEM-5-PS-9	Apply Modifications to Vehicle Electrical System Problems TR-ATAEM-5-PS-10	Apply Modifications to Vehicle Electronic System Problems TR-ATAEM-5-PS-11	
	Assess Vehicle Restoration Options after Crash TR-ATAEM-5-PS-12					

2.2. Railway

Railway is the key priority sub-sector of EASTRIP under the transport sector. Based on the RTQF for Ethiopia, Kenya and Tanzania, Levels 1-5 occupational standards for railway are harmonised as indicated in Figure 3 below. The list of competencies in their categories are provided as well. However, the detailed OS can be found on the IUCEA website.

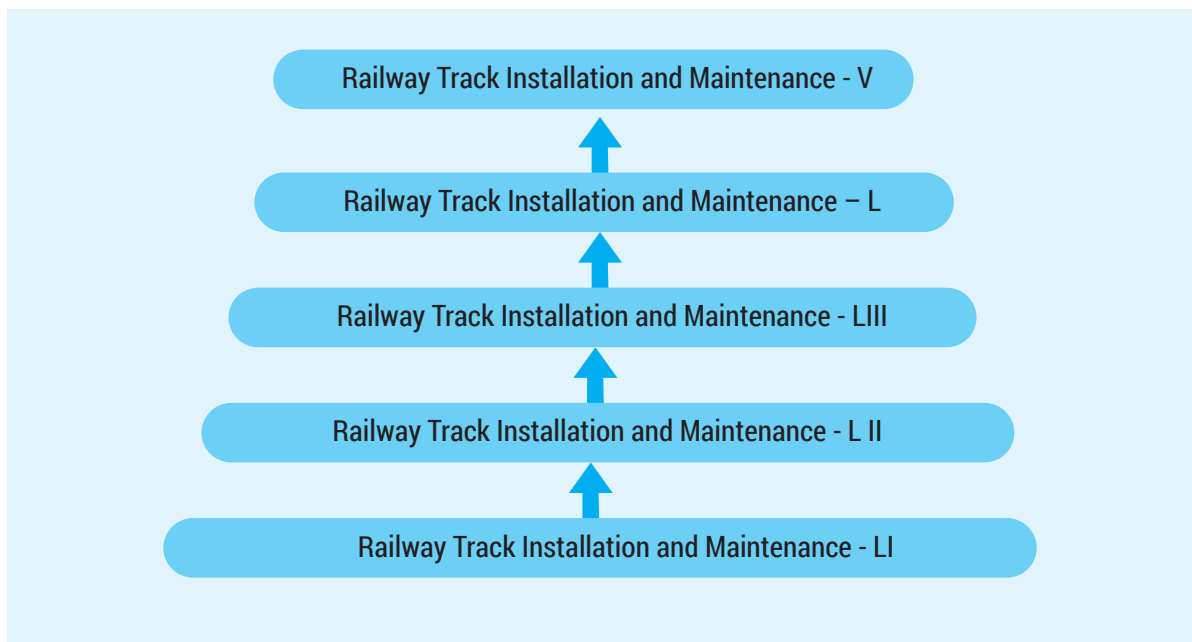


Figure 3: Occupational Standard Chart for Railway

Level 1

Sector: Transport						Code: TR-RTIL
Occupation: Railway Track Installation and Maintenance						
Level of RTQF 1						
Chart of Competency Units and Codes:						
Generic Competencies	Apply Communication L2 GC/COM/2	Apply Numeracy L2 GC/NUM/2	Apply Digital Literacy L2 GC/DL/2	Apply Teamwork L2 GC/TW/2	Apply Employability L2 GC/Emp/2	
	Apply Environmental Literacy L2 GC/Env/2	Apply Entrepreneurship L2 GC/Ent/2				
Common Competencies	Conduct Local Risk Control TR-RTIL-1-KU-1	Perform Manual Earthworks TR-RTIL-1-PS-2	Interpret Plans and Specifications TR-RTIL-1-PS-3	Provide First Aid TR-RTIL-1-PS-4	Apply 5S Procedures TR-RTIL-1-KU-5	
Core Competencies	Maintain Minor Mechanical Equipment in Good Working Condition TR-RTIL-1-PS-6	Compact Materials to the Required Specifications TR-RTIL-1-PS-7	Carry-out Basic Levelling TR-RTIL-1-PS-8	Apply Track Fundamentals TR-RTIL-1-PS-9		

Level 2

Sector: Transport					Code: TR-RTIL
Occupation: Railway Track Installation and Maintenance					
Level of RTQF 2					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L2 GC/COM/2	Apply Numeracy L2 GC/NUM/2	Apply Digital Literacy L2 GC/DL/2	Apply Teamwork L2 GC/TW/2	Apply Employability L2 GC/Emp/2
	Apply Environmental Literacy L2 GC/Env/2	Apply Entrepreneurship L2 GC/Ent/2			
Common Competencies	Apply Hand and Power Tools TR-RTIL-2-PS-1	Assess Operational Capabilities of Equipment TR-RTIL-2-PS-2	Record Track Geometric Dimension TR-RTIL-2-PS-3	Operate Self-Propelled Equipment on Track TR-RTIL-2-PS-4	Grind Rails TR-RTIL-2-PS-5
	Apply Protective Paint Coating Layers TR-RTIL-2-PS-6	Apply Oxy/LPG Equipment in Construction Materials TR-RTIL-2-PS-7	Perform Surface Water Drainage Construction and Maintenance Activities TR-RTIL-2-PS-8	Prevent MUDA Occurrence TR-RTIL-2-KU-9	
Core Competencies	Carry out Track Ballasting TR-RTIL-2-PS-10	Perform Rail Joints Installation and Maintenance Activities TR-RTIL-2-PS-11	Install Railway Sleepers TR-RTIL-2-PS-12	Install Railway TR-RTIL-2-PS-13	Perform Rail Fastening Systems Installation and Repair Activities TR-RTIL-2-PS-14
	Perform Guard Rails Installation and Maintenance Activities TR-RTIL-2-PS-15	Undertake Temporary Track Supports Installation and Repair Activities TR-RTIL-2-PS-16			

Level 3

Sector: Transport					Code: TR-RTIL
Occupation: Railway Track Installation and Maintenance					
Level of RTQF 3					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L3 GC/COM/3	Apply Numeracy L3 GC/NUM/3	Apply Digital Literacy L3 GC/DL/3	Apply Teamwork L3 GC/TW/3	Apply Employability L3 GC/Emp/3
	Apply Environmental Literacy L3 GC/ Env/3	Apply Entrepreneurship L3 GC/Ent/3			
Common Competencies	Repair Track Geometric Dimension TR-RTIL-3-PS-1	Adjust Rail TR-RTIL-3-PS-2	Weld Rail Using Electric Welding Process TR-RTIL-3-PS-3	Control Lift and Movement of Crane TR-RTIL-3-PS-4	Maintain Rail Lubrication Equipment TR-RTIL-3-PS-5
	Grind Switches and Crossings TR-RTIL-3-PS-6	Test Rail Using Ultrasonic Equipment TR-RTIL-3-PS-7	Apply Visual Inspection to Track Infrastructure TR-RTIL-3-PS-8		
Core Competencies	Weld Rail Using Aluminothermic Welding Process TR-RTIL-3-PS-9	Weld Rail using Flash butt Welding Process TR-RTIL-3-PS-10	Implement Ballast Unloading TR-RTIL-3-PS-11	Perform Track Maintenance and Construction Activities TR-RTIL-3-PS-12	Perform Structures Maintenance and Construction Activities TR-RTIL-3-PS-13

Level 4

Sector: Transport					Code: TR-RTIL
Occupation: Railway Track Installation and Maintenance					
Level of RTQF 4					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L4 GC/COM/4	Apply Digital Literacy L4 GC/DL/4	Apply Employability L4 GC/Emp/4	Apply Environmental Literacy L4 GC/ Env/4	Apply Entrepreneurship L4 GC/Ent/4
Common Competencies	Manage Civil Plant and Resources TR-RTIL-4-PS-1	Test Rail Using Non-Destructive Testing Equipment TR-RTIL-4-PS-2	Develop Works Maintenance Schedule TR-RTIL-4-KU-3		
Core Competencies	Supervise Mobile Crane Operations TR-RTIL-4-PS-4	Perform Workplace Data Collection, Analysis and Presentation TR-RTIL-4-KU-5	Perform Accident-Emergency Coordination and Response TR-RTIL-4-KU-6	Examine Track components TR-RTIL-4-PS-7	

Level 5

Sector: Transport					Code: TR-RTIL
Occupation: Railway Track Installation and Maintenance					
Level of RTQF 5					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L5 GC/COM/5	Apply Digital Literacy L5 GC/DL/5	Apply Employability L5 GC/Emp/5	Apply Environmental Literacy L5 GC/Env/5	Apply Entrepreneurship L5 GC/Ent/5
Common Competencies					
Core Competencies	Implement Track Construction Plans TR-RTIL-5-PS-1	Undertake Track Maintenance Programmes Development and Implementation TR-RTIL-5-KU-2	Prepare Detailed Works Project Documentation TR-RTIL-5-KU-3	Perform Data Analysis and Results Presentation TR-RTIL-5-KU-4	Perform Complex Tests for Measuring Engineering Properties of Materials TR-RTIL-5-PS-5
	Implement Site Plant, Equipment and Infrastructure Maintenance Plan TR-RTIL-5-PS-6	Evaluate Vendor Products and Equipment TR-RTIL-5-PS-7	Perform Maintenance Programmes Development and Implementation TR-RTIL-5-KU-8		

2.3. Logistics

Logistics Operations and Management (LOM) sub-sector under the transport sector is one of the key EASTRIP priority sectors. Based on the RTQF for Ethiopia, Kenya and Tanzania, Levels 2-5 occupational standards for LOM are harmonised as indicated in Figure 4 below. The list of competencies in their categories are provided as well. However, the detailed OS can be found on the IUCEA website.

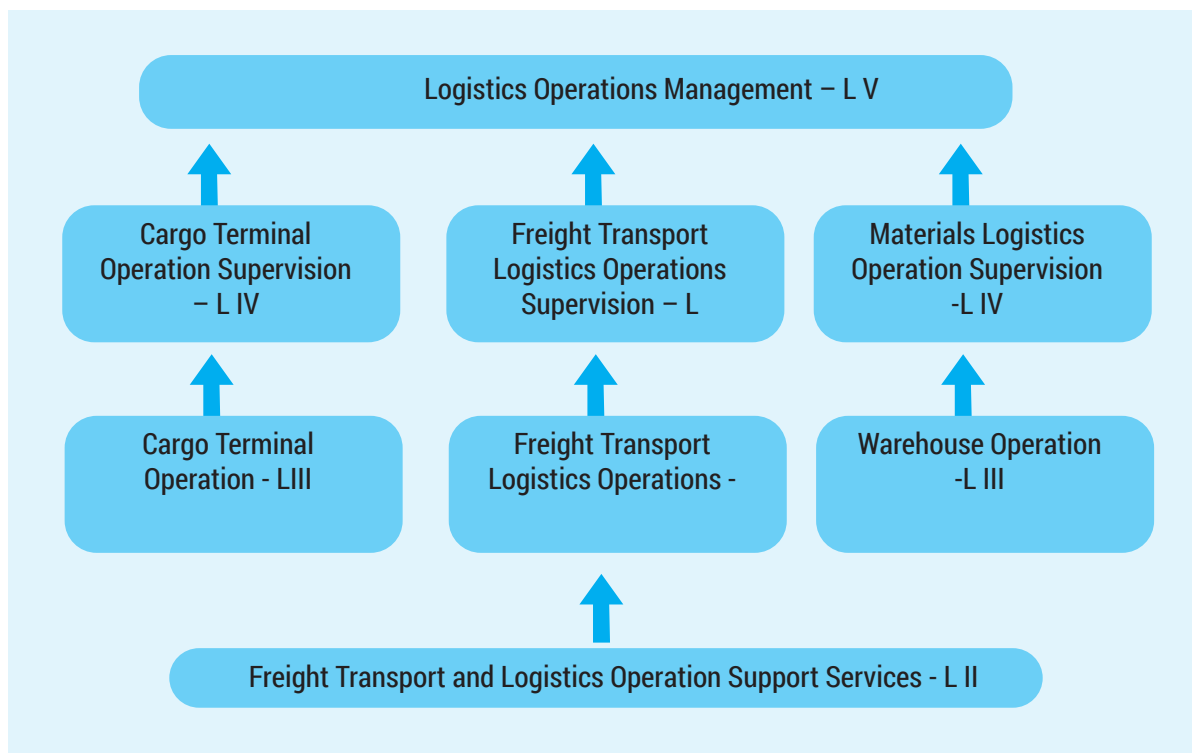


Figure 4: Logistics Operations and Management Occupational Standard Chart

Level 2

Sector: Transport					Code: TR-FTLS
Occupation: Freight Transport and Logistics Operation Support Services					
Level of RTQF 2					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L2 GC/COM/2	Apply Numeracy L2 GC/NUM/2	Apply Digital Literacy L2 GC/DL/2	Apply Teamwork L2 GC/TW/2	Apply Employability L2 GC/Emp/2
	Apply Environmental Literacy L2 GC/Env/2	Apply Entrepreneurship L2 GC/Ent/2			
Common Competencies	Perform Loading and Unloading of Goods/Cargo TR-FTLS-2-PS-1	Operate Firefighting Equipment TR-FTLS-2-PS-2	Receive Goods TR-FTLS-2-PS-3	Perform Stock Takes Process TR-FTLS-2-PS-4	Perform Pick and Order Process TR-FTLS-2-PS-5
	Complete Routine Logistics Tasks TR-FTLS-2-PS-6	Provide Information from and about Records TR-FTLS-2-PS-7	Operate a Forklift TR-FTLS-2-PS-8	Apply Standardised 3S Procedure TR-FTLS-2-KU-9	Demonstrate Awareness of Chain of Responsibility Regulations TR-FTLS-2-KU-10
Core Competencies	Follow Security Procedures when Working with Goods and Cargo TR-FTLS-2-KU-11	Apply Awareness of Safe Working Rules and Regulations TR-FTLS-2-KU-12	Apply Safe Procedures when Handling/ Transporting Dangerous Goods or Explosives TR-FTLS-2-KU-13	Perform Freight Packaging, Labelling, and Consolidation for Shipment TR-FTLS-2-PS-14	Prepare for Transport of Packaged Dangerous Goods TR-FTLS-2-PS-15
	Conduct Cargo / Freight Handling Operations TR-FTLS-2-PS-16	Assess Operational Capabilities of Equipment TR-FTLS-2-PS-17	Conduct Weighbridge Operations TR-FTLS-2-PS-18	Apply Specialist Permit Requirements as Part of Customs Broking TR-FTLS-2-PS-19	Capture Records into a Records Keeping System TR-FTLS-2-PS-20
	Maintain Control of Records TR-FTLS-2-PS-21	Administer the Security of Assets and Facilities TR-FTLS-2-KU-22	Prepare Passenger/ Freight Manifest TR-FTLS-2-PS-23	Process Workplace Documentation TR-FTLS-2-PS-24	

Level 3

Sector: Transport					Code: TR-CTO
Occupation: Cargo Terminal Operation					
Level of RTQF 3					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L3 GC/COM/3	Apply Numeracy L3 GC/NUM/3	Apply Digital Literacy L3 GC/DL/3	Apply Teamwork L3 GC/TW/3	Apply Employability L3 GC/Emp/3
	Apply Environmental Literacy L3 GC/Env/3	Apply Entrepreneurship L3 GC/Ent/3			
Common Competencies	Undertake Rigger and Driver Communication TR-CTO-3-KU-1	Perform Occupational Health and Safety Procedures Implementation and Monitoring TR-CTO-3-KU-2	Perform Job Planning and Setting Up Work Areas TR-CTO-3-PS-3	Complete Workplace Documents TR-CTO-3-KU-4	Perform Workplace Security Procedures Implementation and Monitoring TR-CTO-3-KU-5
	Follow Mobile Crane Safety Procedures TR-CTO-3-KU-6	Conduct Control Procedures for Transferring Explosives and Dangerous/Hazardous/High Risk Goods TR-CTO-3-KU-7	Monitor Implementation of Work Plan/Activities and Work Instruction TR-CTO-3-KU-8	Apply Quality Control TR-CTO-3-KU-9	Prevent MUDA Occurrence TR-CTO-3-KU-10
Core Competencies	Maintain Container/Cargo Records TR-CTO-3-PS-11	Process Receipt and Delivery of Containers and Cargo TR-CTO-3-PS-12	Monitor Transfer of Cargo TR-CTO-3-PS-13	Control Lift and Movement of Crane TR-CTO-3-PS-14	Estimate Load Shifting Requirements for Crane TR-CTO-3-KU-15
	Coordinate Breakdowns and Emergencies TR-CTO-3-KU-16	Carry out Emergency Response to a Dangerous / Hazardous Goods Incident TR-CTO-3-KU-17			

Level 3

Sector: Transport					Code: TR-FTLS
Occupation: Freight Transport Logistics Operations					
Level of RTQF 3					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L3 GC/COM/3	Apply Numeracy L3 GC/NUM/3	Apply Digital Literacy L3 GC/DL/3	Apply Teamwork L3 GC/TW/3	Apply Employability L3 GC/Emp/3
	Apply Environmental Literacy L3 GC/Env/3	Apply Entrepreneurship L3 GC/Ent/3			
Common Competencies	Maintain Transport Business Image TR-FTLS-3-KU-1	Organise Personal Work Priorities and Development TR-FTLS-3-PS-2	Monitor Implementation of Work Plan/ Activities TR-FTLS-3-PS-3	Prevent MUDA Occurrence TR-FTLS-KU-4	Apply Quality Control TR-FTLS-3-KU-5
Core Competencies	Maintain Container/ Cargo Records TR-FTLS-3-PS-6	Process Receipt and Delivery of Containers and Cargo TR-FTLS-3-PS-7	Transfer Cargo TR-FTLS-3-PS-8	Estimate Load Weight and Dimensions for Transport or Storage TR-FTLS-3-KU-9	Prepare Workplace Documents TR-FTLS-3-PS-10
	Maintain Freight Records TR-FTLS-3-PS-11	Coordinate Breakdowns and Emergencies TR-FTLS-3-KU-12	Perform Customer Needs Assessment and Service Monitoring TR-FTLS-3-KU-13	Perform Receivable Organisation and Dispatch Operations TR-FTLS-3-PS-14	Organise Freight Invoicing and Payment TR-FTLS-3-PS-15
	Perform Explosives and Dangerous Goods Identification, Handling and Labelling TR-FTLS-3-PS-16	Organise Transport of Freight or Goods TR-FTLS-3-PS-17	Undertake Rigger/Dogger and Driver Communication TR-FTLS-3-KU-18	Plan Transport Load TR-FTLS-3-PS-19	

Level 3

Sector: Transport					Code: TR-WO
Occupation: Warehouse Operation					
Level of RTQF 3					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L3 GC/COM/3	Apply Numeracy L3 GC/NUM/3	Apply Digital Literacy L3 GC/ DL/3	Apply Teamwork L3 GC/TW/3	Apply Employability L3 GC/Emp/3
	Apply Environmental Literacy L3 GC/Env/3	Apply Entrepreneurship L3 GC/Ent/3			
Common Competencies	Transfer Cargo TR-WO-3-PS-1	Perform Stock Reveal and Storage TR-WO-3-PS-2	Organise Dispatch Operations TR-WO-3-PS-3	Prepare Articles for Delivery TR-WO-3-PS-4	Coordinate Stock Takes TR-WO-3-PS-5
	Organise Warehouse Records Operations TR-WO-3-PS-6	Monitor Implementation of Work Plan/ Activities TR-WO-3-KU-7	Apply Quality Control TR-WO-3-KU-8	Prevent MUDA Occurrence TR-WO-3-KU-9	
Core Competencies	Estimate Load Weight and Dimensions TR-WO-3-KU-10	Organise Receivable Operations TR-WO-3-PS-11	Consolidate Manifest Documentation TR-WO-3-PS-12	Perform Explosives and Dangerous Goods Identification, Handling and Labelling TR-WO-3-PS-13	Process Receipt and Delivery of Containers and Cargo TR-WO-3-PS-14
	Monitor Receivable and Dispatch Documentation TR-WO-3-PS-15	Perform Customer Needs Assessment and Service Monitoring TR-WO-3-KU-16	Coordinate Stock Inventory TR-WO-3-PS-17	Use Inventory Systems to Organise Stock Control TR-WO-3-PS-18	Perform Stock Control and Order TR-WO-3-PS-19

	Monitor Storage Facilities TR-WO-3-PS-20	Control Procedures for Transferring Explosives and Dangerous Goods TR-WO-3-PS-21	Undertake Disposal Programme TR-WO-3-PS-22	Use Product Knowledge to Complete Work Operations TR-WO-3-PS-23	
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Level 4

Sector: Transport					Code: TR-CTO
Occupation: Cargo Terminal Operation Supervision					
Level of RTQF 4					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L4 GC/COM/4	Apply Digital Literacy L4 GC/DL/4	Apply Employability L4 GC/Emp/4	Apply Environmental Literacy L4 GC/ Env/4	Apply Entrepreneurship L4 GC/Ent/4
Common Competencies	Perform Accident-Emergency Coordination and Response TR-CTO-4-KU-1	Manage Fatigue Policy and Procedures TR-CTO-4-KU-2	Direct Crane Operations TR-CTO-4-PS-3	Manage Crane Operations TR-CTO-4-PS-4	Manage Incident Responses TR-CTO-4-PS-5
	Implement Work Plan TR-CTO-4-KU-6	Establish Quality Standards TR-CTO-4-KU-7			
Core Competencies	Manage Terminal/Wharf Operations TR-CTO-4-PS-8	Perform Workplace Data Collection, Analysis and Presentation TR-CTO-4-PS-9	Oversee Stevedoring Regulations Compliance TR-CTO-4-KU-10	Manage Dangerous Goods Storage and Transportation TR-CTO-4-PS-11	Coordinate Stevedoring Clerical Functions TR-CTO-4-PS-12
	Develop Plans to Meet Customer and Organisation Needs TR-CTO-4-KU-13	Apply Conflict/Grievance Resolution Strategies TR-CTO-4-KU-14	Evaluate Records and Documentation for Compliance TR-CTO-4-PS-15	Monitor Crane Operations TR-CTO-4-PS-16	Supervise Mobile Crane Operations TR-CTO-4-PS-17

	Perform Customer Transport Needs and Transit Requirements Assessment TR-CTO-4-KU-18				
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Level 4

Sector: Transport					Code: TR-FTLS
Occupation: Freight Transport Logistics Operations Supervision					
Level of RTQF 4					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L4 GC/COM/4	Apply Digital Literacy L4 GC/DL/4	Apply Employability L4 GC/Emp/4	Apply Environmental Literacy L4 GC/Env/4	Apply Entrepreneurship L4 GC/Ent/4
Common Competencies	Develop Plans to Meet Customer and Organisational Needs TR-FTLS-4-KU-1	Organise transport workload TR-FTLS-4-PS-2	Coordinate Transport Activities TR-FTLS-4-KU-3	Develop Transport Plans and Schedules TR-FTLS-4-PS-4	Apply Workplace Statistics TR-FTLS-4-KU-5
	Perform Planning and Controlling of Daily Transport Operations, TR-FTLS-4-KU-6	Monitor Rosters TR-FTLS-4-PS-7	Manage Work Activities TR-FTLS-4-KU-8	Implement Work Plan TR-FTLS-4-KU-9	Apply Emerging Technologies TR-FTLS-4-KU-10
	Establish Quality Standards TR-FTLS-4-KU-11	Develop Individuals and Teams TR-FTLS-4-KU-12	Apply Problem Solving Techniques and Tools TR-FTLS-4-KU-13		

Core Competencies	Perform Accident-Emergency Coordination and Response TR-FTLS-4-KU-14	Implement Dangerous Goods Transport Procedures within the Workplace TR-FTLS-4-PS-15	Monitor Transport Operations TR-FTLS-4-PS-16	Undertake Freight Marketing of Transport Logistics Services and Operations TR-FTLS-4-PS-17	Perform Logistics Operations Planning and Management TR-FTLS-4-PS-18
	Organise Marshalling and Shunting Operations TR-FTLS-4-PS-19	Organise Transport of Freight or Goods, TR-FTLS-4-PS-20	Coordinate Fleet Control Logistics TR-FTLS-4-PS-21	Ensure Compliance with Dangerous Goods Codes TR-FTLS-4-PS-22	Manage Transport Regulations Compliance Systems TR-FTLS-4-KU-23
	Assess Vehicle Systems and Repair Options TR-FTLS-4-PS-24				

Level 4

Sector: Transport					Code: TR-MLO
Occupation: Materials Logistics Operation Supervision					
Level of RTQF 4					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L4 GC/COM/4	Apply Digital Literacy L4 GC/DL/4	Apply Employability L4 GC/Emp/4	Apply Environmental Literacy L4 GC/Env/4	Apply Entrepreneurship L4 GC/Ent/4
Common Competencies	Regulate Temperature Controlled Stock TR-MLO-4-PS-1	Monitor Rosters TR-MLO-4-PS-2	Apply Workplace Statistics TR-MLO-4-KU-3	Perform Assets Disposal Strategy Implementation TR-MLO-4-KU-4	Implement Dangerous Goods Transport Procedures within the Workplace TR-MLO-4-PS-5
	Apply Knowledge of Materials Sustainment TR-MLO-4-KU-6	Implement Work Plan TR-MLO-4-KU-7	Apply Emerging Technologies TR-MLO-4-KU-8	Establish Quality Standards TR-MLO-4-KU-9	Apply Problem Solving Techniques and Tools TR-MLO-4-KU-10
Core Competencies	Implement Safety Stock Systems TR-MLO-4-PS-11	Evaluate Records and Documentation for Regulatory Compliance TR-MLO-4-PS-12	Apply Codification and Cataloguing Processes and Procedures TR-MLO-4-PS-13	Manage Requests for Offers TR-MLO-4-PS-14	Monitor Supplier Performance TR-MLO-4-PS-15
	Organise Marshalling and Shunting Operations TR-MLO-4-PS-16	Perform Stocktaking TR-MLO-4-PS-17	Manage Inventory TR-MLO-4-PS-18	Coordinate the Erection and Dismantling of Temporary Storage Facilities TR-MLO-4-PS-19	Perform Materials Sustainment Plan Implementation and Monitoring TR-MLO-4-KU-20

Level 5

Sector: Transport					Code: TR-LOM
Occupation: Logistics Operations Management					
Level of RTQF 5					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L5 GC/COM/5	Apply Digital Literacy L5 GC/DL/5	Apply Employability L5 GC/Emp/5	Apply Environmental Literacy L5 GC/Env/5	Apply Entrepreneurship L5 GC/Ent/5
Common Competencies	Manage Customer Transport Requirements TR-LOM-5-PS-1	Manage Transport Operations and System TR-LOM-5-KU-2	Manage Road Convoy Movement TR-LOM-5-PS-3	Interpret Data and Related Statistics TR-LOM-5-KU-4	Implement Transport Vehicle Management System TR-LOM-5-KU-5
	Manage a Supply Chain TR-LOM-5-KU-6	Promote Products and Services to International Markets TR-LOM-5-KU-7	Manage Terminal Facility Requirements TR-LOM-5-PS-8	Plan Logistic Support for Deployed Operations TR-LOM-5-KU-9	Organise the Deployment and Delivery of Logistics Support TR-LOM-5-KU-10
	Manage Material Sustainment Operations TR-LOM-5-KU-11	Manage Project Quality TR-LOM-5-KU-12	Manage Change and Innovation TR-LOM-5-KU-13	Manage Continuous Improvement Process (Kaizen) TR-LOM-5-KU-14	
Core Competencies	Manage a Transport and Logistics Business Unit TR-LOM-5-KU-15	Perform Operational Procedures Development and Implementation for Transport and Logistics Enterprises TR-LOM-5-PS-16	Apply Contract Management TR-LOM-5-KU-17	Manage Operational Plan TR-LOM-5-KU-18	Manage Fatigue Management Policy and Procedures TR-LOM-5-KU-19

3. Energy/ Electrical power Sector

3.1. Power generation

Power generation sub-sector is under the Energy/Electrical Power; one of EASTRIP's priority sectors. Based on the RTQF for Ethiopia, Kenya and Tanzania, Levels 2-5 occupational standards for power generation are harmonised as indicated in Figure 5 below. The list of competencies in their categories are provided as well. However, the detailed OS can be found on the IUCEA website.

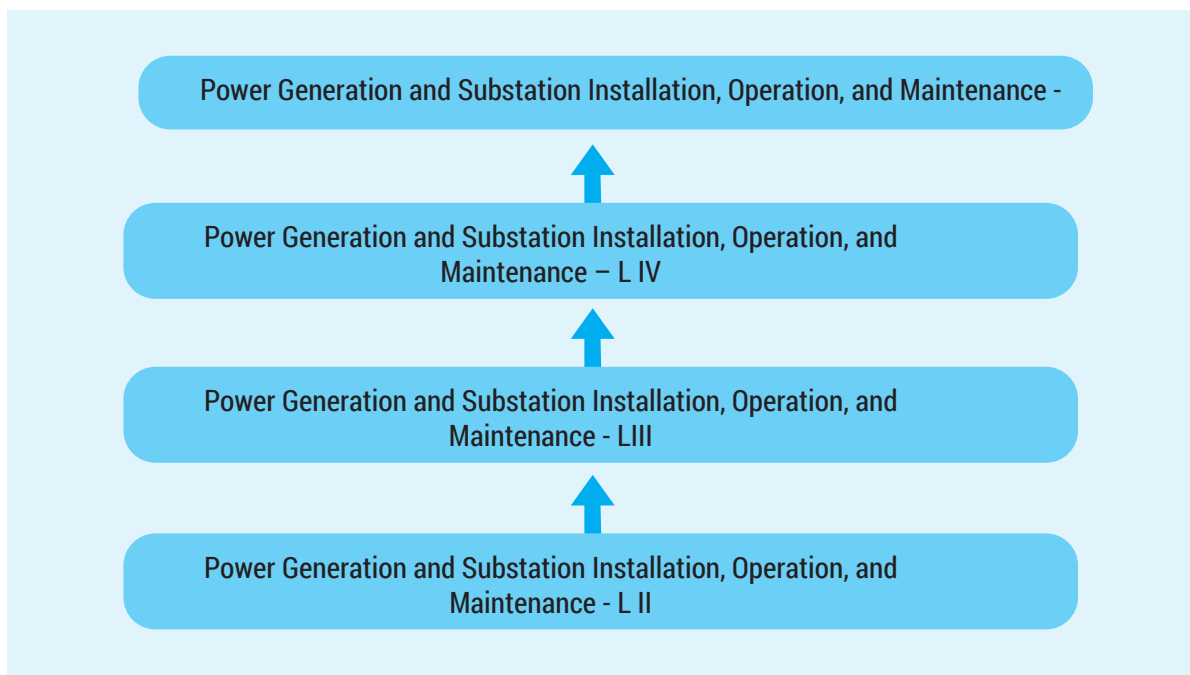


Figure 5: Occupational Standard Chart for Power Generation

Level 2

Sector: Energy/Power						Code: E/P-PGs-2
Occupation: Power Generation and Substation Installation, Operation and Maintenance						
Level of RTQF 2						
Chart of Competency Units and Codes:						
Generic Competencies	Apply Communication L2 GC/COM/2	Apply Numeracy L2 GC/NUM/2	Apply Digital Literacy L2 GC/DL/2	Apply Teamwork L2 GC/TW/2	Apply Employability L2 GC/Emp/2	
	Apply Environmental Literacy L2 GC/Env/2	Apply Entrepreneurship L2 GC/Ent/2				
Common Competencies	Use Drawings, Diagrams, Schedules and Manuals E/P-PGs-2-PS-1	Use Relevant Basic Computer Applications E/P-PGs-2-PS-2	Implement and Monitor the Organisational OHS Policies Procedures and Programmes E/P-PGs-2-PS-3	Apply Environmental and Sustainable Energy Procedures E/P-PGs-2-PS-4	Maintain and Utilise Records E/P-PGs-2-PS-5	
	Operate and Maintain Basic Electrical Equipment E/P-PGs-2-PS-6	Perform Plant Lubrication E/P-PGs-2-PS-7	Perform Basic Machining Operations E/P-PGs-2-PS-8	Perform Welding E/P-PGs-2-PS-9	Solve Basic problems Electronic and digital equipment and Circuits E/P-PGs-2-PS-10	
Core Competencies	Operate Forklift and Load Shifting Equipment E/P-PGs-2-PS-11	Operate Fuel Supply System (Biogases/ Furnace Oil/Bio-Mass/Coal) E/P-PGs-2-PS-12	Operate Air Conditioning Plant E/P-PGs-2-PS-13	Operate and Monitor Internal Combustion Reciprocating Engine E/P-PGs-2-PS-14	Operate and Monitor Generator Compressed Air System E/P-PGs-2-PS-15	

	Operate and Monitor Generator Oil System E/P-PGs-2-PS-16	Operate and Monitor Wind Generator E/P-PGs-2-PS-17	Operate HV Primary and Secondary Switchgears E/P-PGs-2-PS-18	Conduct Operational Checks on In-Service Electrical and Mechanical Plant E/P-PGs-2-PS-19	Operate and Monitor Water System E/P-PGs-2-PS-20
	Operate and Monitor Steam Turbine E/P-PGs-2-PS-21	Install and Maintain Hydraulic/Pneumatic Components E/P-PGs-2-PS-22	Install and Maintain Industrial Pipe Works E/P-PGs-2-PS-23	Install and Maintain Mechanical Valves E/P-PGs-2-PS-24	Install and Maintain Mechanical Pumps E/P-PGs-2-PS-25
	Install and Maintain Industrial Fans E/P-PGs-2-PS-26	Install and Maintain Industrial Screens, Strainers and Filters E/P-PGs-2-PS-27	Install and Maintain Fuel Transport Equipment E/P-PGs-2-PS-28	Install and Maintain Industrial Pressure Vessels E/P-PGs-2-PS-29	Install and Maintain Internal Combustion Engines E/P-PGs-2-PS-30
	Repair/Replace/Modify Metal Structures and Components E/P-PGs-2-PS-31	Operate and Monitor Internal Fuel Reciprocating Engine E/P-PGs-2-PS-32	Perform Rigging Work E/P-PGs-2-PS-33	Maintain Battery Banks and Cells E/P-PGs-2-PS-34	Perform Dogging Work E/P-PGs-2-PS-35
	Perform Scaffolding E/P-PGs-2-PS-36				

Level 3

Sector: Energy/Power					Code: E/P-PGs-3
Occupation: Power Generation and Substation Installation, Operation and Maintenance					
Level of RTQF: 3					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L3 GC/COM/3	Apply Numeracy L3 GC/NUM/3	Apply Digital Literacy L3 GC/DL/3	Apply Teamwork L3 GC/TW/3	Apply Employability L3 GC/Emp/3
	Apply Environmental Literacy L3 GC/Env/3	Apply Entrepreneurship L3 GC/Ent/3			
Common Competencies	Set-up and Configure Basic Local Area Network E/P-PGs-3-PS-1	Operate Explosive Powered Tools E/P-PGs-3-PS-2	Perform Sheet Metal Works E/P-PGs-3-PS-3	Weld Using Manual Metal Arc Welding Process E/P-PGs-3-PS-4	
Core Competencies	Operate and Monitor Communications Systems E/P-PGs-3-PS-5	Operate and Monitor Fire Protection Systems E/P-PGs-3-PS-6	Administer User Networks E/P-PGs-3-PS-7	Monitor Implementation of Under Frequency Load Shedding E/P-PGs-3-PS-8	Inspect and Repair/ Replace Faults in Mechanical Components E/P-PGs-3-PS-9
	Diagnose and Repair Faults in Mechanical Equipment E/P-PGs-3-PS-10	Conduct Generator Mechanical Maintenance E/P-PGs-3-PS-11	Maintain and Test Fixed Fire Protection Systems E/P-PGs-3-PS-12	Install and Maintain Hydro, Wwind and steam Steam Turbines E/P-PGs-3-PS-13	Fabricate Metal Structures and Components E/P-PGs-3-PS-14

	Perform Scaffolding E/P-PGs-3-PS-15	Perform Rigging Works E/P-PGs-3-PS-16	Install and Maintain Industrial Transmissions E/P-PGs-3-PS-17	Diagnose and Repair Faults in Electronic Equipment E/P-PGs-3-PS-18	Install, Commission and maintain Maintain Electronic Electrical Equipment E/P-PGs-3-PS-19
	Install and Maintain Instrumentation Equipment E/P-PGs-3-PS-20	Conduct Routine Generator Electrical Maintenance E/P-PGs-3-PS-21	Terminate Fiber Optic Cables E/P-PGs-3-PS-22	Maintain HV Power System Breakers E/P-PGs-3-PS-23	Maintain Discrete Protection and Control System E/P-PGs-3-PS-24
	Carry-out Substation Inspections E/P-PGs-3-PS-25				

Level 4

Sector: Energy/Power					Code: E/P-PGs-4
Occupation: Power Generation and Substation Installation, Operation and Maintenance - Level IV					
Level of RTQF: 4					
Chart of Competency units and Codes:					
Generic Competencies	Apply Communication L4 GC/COM/4	Apply Digital Literacy L4 GC/DL/4	Apply Employability L4 GC/Emp/4	Apply Environmental Literacy L4 GC/Env/4	Apply Entrepreneurship L4 GC/Ent/4
Common Competencies	Monitor and Implement Environmental Plans and Procedures E/P-PGs-4-PS-1	Use Engineering Applications Software E/P-PGs-4-PS-2	Develop, Enter and Verify Programs for PLC E/P-PGs-4-PS-3	Develop, Enter and Verify Programmes in Supervisory Control and Data Acquisition Systems E/P-PGs-4-PS-4	Install and Configure Computer Operating System and Software E/P-PGs-4-PS-5
	Set up and Configure Basic Local Area Network E/P-PGs-4-PS-6				
Core Competencies	Coordinate and Direct Switching Programme E/P-PGs-4-PS-7	Operate and Monitor DC and AC Electrical System E/P-PGs-4-PS-8	Coordinate Local HV Networks E/P-PGs-4-PS-9	Operate and Monitor System Equipment E/P-PGs-4-PS-10	Conduct Technical Inspection of Process Plant and Equipment E/P-PGs-4-PS-11
	Develop HV Switching Programmes E/P-PGs-4-PS-12	Undertake Operations Commissioning/Decommissioning E/P-PGs-4-PS-13	Maintain Complex Mechanical Valves E/P-PGs-4-PS-14	Maintain Complex Mechanical Pumps E/P-PGs-4-PS-15	Install and Commission Complex Electrical Equipment E/P-PGs-4-PS-16

	Install and Maintain Steam Turbine E/P-PGs-4-PS-17	Maintain Fluid Power Systems E/P-PGs-4-PS-18	Diagnose and Repair Faults in Complex Instrumentation Equipment E/P-PGs-4-PS-19	Diagnose and Repair Faults in Complex Refrigeration/ Air Conditioning Equipment E/P-PGs-4-PS-20	Install and Maintain Industrial Transmissions E/P-PGs-4-PS-21
	Conduct Welding Inspection/ Supervision E/P-PGs-4-PS-22	Conduct Performance Testing on Process Plant and Equipment E/P-PGs-4-PS-23	Inspect Electrical Generators and Diagnose Faults E/P-PGs-4-PS-24	Overhaul Electrical Generator E/P-PGs-4-PS-25	Perform Mechanical and Fabrication Drafting E/P-PGs-4-PS-26
	Perform Electrical / Electronic Drafting E/P-PGs-4-PS-27	Conduct Technical Inspection of Process Plant and Equipment E/P-PGs-4-PS-28	Maintain Voltage Regulating Equipment – On Load Tap Changers Maintain High Current DC E/P-PGs-4-PS-29	Diagnose and Rectify Faults in Power Systems Substation Environment E/P-PGs-4-PS-30	Maintain HV Power System – Ssubstation Transformers and Instrument E/P-PGs-4-PS-31
	Install High Current DC Switchgear and Equipment E/P-PGs-4-PS-32	Maintain HV Power System Static VAR Compensators E/P-PGs-4-PS-33	Test, Maintain and commission Commission Metering Schemes E/P-PGs-4-PS-34	Perform Accuracy Checks on Instrument Transformers E/P-PGs-4-PS-35	Write Programmes for Control Systems E/P-PGs-4-PS-36

Level 5

Sector: Energy/Power					Code: E/P-PGs-5
Occupation: Power Generation and Substation Installation, Operation and Maintenance- level V					
Level of RTQF: 5					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L5 GC/COM/5	Apply Digital Literacy L5 GC/DL/5	Apply Employability L5 GC/Emp/5	Apply Environmental Literacy L5 GC/Env/5	Apply Entrepreneurship L5 GC/Ent/5
Common Competencies	Manage Occupational Health and Safety Policy and Procedures E/P-PGs-5-PS-1	Develop, Implement and Monitor Environmental Management Systems E/P-PGs-5-PS-2	Manage and Coordinate Permit to Work system E/P-PGs-5-PS-3	Manage First Response Team Operations E/P-PGs-5-PS-4	Manage Personal Work Priorities and Professional Development E/P-PGs-5-PS-5
	Perform Cost Estimations E/P-PGs-5-PS-6	Use Engineering Application Software E/P-PGs-5-PS-7	Manage Quality Control Procedures E/P-PGs-5-PS-8		
Core Competencies	Establish and Implement Operational Strategies for Power Production E/P-PGs-5-PS-9	Monitor Power Generation plant Reliability E/P-PGs-5-PS-10	Manage Operational Crisis to Maintain/Restore Power System E/P-PGs-5-PS-11	Manage Network/ System E/P-PGs-5-PS-12	Develop Contingency Plans E/P-PGs-5-PS-13
	Conduct Project Management E/P-PGs-5-PS-14	Coordinate Power Generation E/P-PGs-5-PS-15	Manage Commissioning/Decommissioning E/P-PGs-5-PS-16	Produce Maintenance Strategies for Generation Production E/P-PGs-5-PS-17	Produce Maintenance Plans for Generation Production Plant E/P-PGs-5-PS-18

	Manage Critical Incidents E/P-PGs-5-PS-19	Manage System Restart E/P-PGs-5-PS-20	Design and Develop Text Documents E/P-PGs-5-PS-21	Investigate Quality of Supply Issues E/P-PGs-5-PS-22	Coordinate and Direct Switching Program E/P-PGs-5-PS-23
	Plan Scheduled Outage Sstrategy E/P-PGs-5-PS-24	Manage Operational Crisis to Maintain/ Restore Power System Integrity E/P-PGs-5-PS-25	Deliver and Monitor Service to Customers E/P-PGs-5-PS-26		

3.2. Transmission and Distribution

Power transmission and distribution is under the Energy/Electrical power sector; one of EASTRIP priority sector. Based on the RTQF for Ethiopia, Kenya and Tanzania, Levels 2-5 occupational standards for transmission and distribution are harmonised as indicated in Figure 6 below. The list of competencies in their categories are provided as well. However, the detailed OS can be found on the IUCEA website

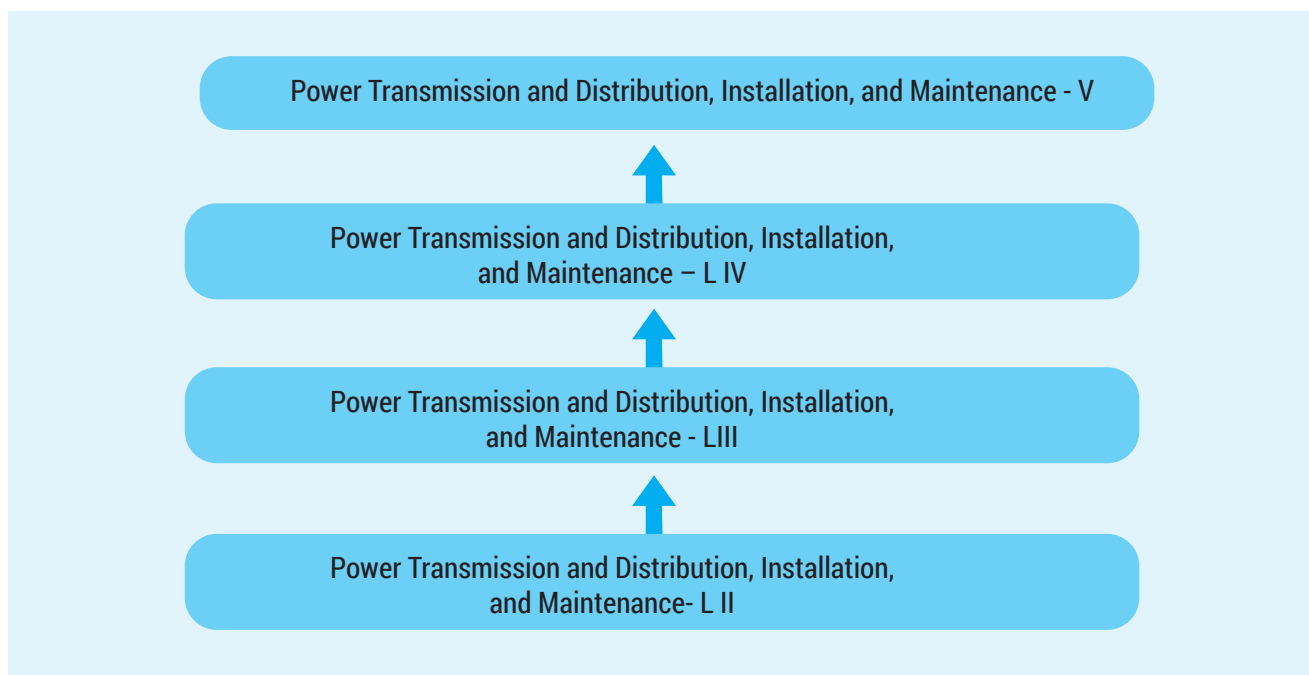


Figure 6: Occupational Standard Chart for Power Transmission and Distribution

Level 2

Sector: Energy/Power					Code: E/P-PTd-2
Occupation: Power transmission Transmission and distribution Distribution Installation and maintenance Maintenance					
Level of RTQF: 2					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L2 GC/COM/2	Apply Numeracy L2 GC/NUM/2	Apply Digital Literacy L2 GC/DL/2	Apply Teamwork L2 GC/TW/2	Apply Employability L2 GC/Emp/2
	Apply Environmental Literacy L2 GC/Env/2	Apply Entrepreneurship L2 GC/Ent/2			
Common Competencies	Use Drawings, Diagrams, Schedules and Manuals E/P-PTd-2-PS-1	Use Relevant Basic Computer Applications E/P-PTd-2-PS-2	Implement and Monitor the Organisational OHS Policies Procedures and Programmes E/P-PTd-2-PS-3	Apply Environment and Sustainable Energy Procedures E/P-PTd-2-PS-4	Maintain and Utilise Records E/P-PTd-2-PS-5
	Operate and Mmaintain Basic Electrical Equipment E/P-PTd-2-PS-6	Perform Basic Machining Operations E/P-PTd-2-PS-7	Perform Welding E/P-PTd-2-PS-8	Operate Vegetation Control Plant, Machinery and Equipment near Live Electrical Apparatus E/P-PTd-2-PS-9	Use Safely Elevating Work Platform (EWP) near Live Electrical Apparatus E/P-PTd-2-PS-10

	Solve Basic problems Problems electronic Electronic and digital Digital equipment Equipment and circuits Circuits E/P-PTd-2-PS-11				
Core Competencies	Erect Transmission Towers E/P-PTd-2-PS-12	Lay Electrical Cables E/P-PTd-2-PS-13	Install and Maintain De-Energised LV Underground Polymeric Cables E/P-PTd-2-PS-14	Operate Plant and Equipment near Live Electrical Conductors/ Apparatus E/P-PTd-2-PS-15	Lay Wiring and Terminate Accessories for Extra-Low Voltage Circuits E/P-PTd-2-PS-16
	Install and Maintain Poles / Structures and Associated Hardware E/P-PTd-2-PS-17	Install and Maintain Overhead Conductors and Cables (Poles and Structures) E/P-PTd-2-PS-18	Erect and Maintain Transmission Towers and Associated Hardware E/P-PTd-2-PS-19	Install and Maintain De-Energised LV Underground Paper Insulated Cables E/P-PTd-2-PS-20	Joint and Maintain Energised LV Underground Polymeric Cables E/P-PTd-2-PS-21
	Perform LV Field Switching Operation to a Given Schedule E/P-PTd-2-PS-22	Install and Maintain Public Lighting Systems E/P-PTd-2-PS-23	Install and Maintain Low Voltage Services (Underground and Overhead) E/P-PTd-2-PS-24	Install and Maintain Overhead Conductors and Cables (Towers) E/P-PTd-2-PS-25	Inspect Overhead Structures and Electrical Apparatus (Towers, Poles and Structures) E/P-PTd-2-PS-26
	Maintain Overhead Energised LV Conductors and Cables E/P-PTd-2-PS-27				

Level 3

Sector: Energy/Power						Code: E/P-PTd-3
Occupation: Power Transmission and Distribution Installation and Maintenance						
Level of RTQF: 3						
Chart of Competency Units and Codes:						
Generic Competencies	Apply Communication L3 GC/COM/3	Apply Numeracy L3 GC/NUM/3	Apply Digital Literacy L3 GC/DL/3	Apply Teamwork L3 GC/TW/3	Apply Employability L3 GC/Emp/3	
	Apply Environmental Literacy L3 GC/Env/3	Apply Entrepreneurship L3 GC/Ent/3				
Common Competencies	Use Drawings, Diagrams, Schedules and Manuals E/P-PTd-3-PS-1	Implement and Monitor the Organisational OHS Policies Procedures and Programmes E/P-PTd-3-PS-2				
Core Competencies	Operate Plant and Equipment near Live Electrical Conductors / Apparatus E/P-PTd-3-PS-3	Dismantle, Assemble and Fabricate Electro Technology Components E/P-PTd-3-PS-4	Inspect Overhead Structures and Electrical Apparatus/ Tower E/P-PTd-3-PS-5	Develop HV Switching Schedule E/P-PTd-3-PS-6	Coordinate HV Distribution and Sub Transmission Networks E/P-PGs-3-PS-7	
	Coordinate Permit Procedures E/P-PTd-3-PS-8	Maintain Energised Lines (Transmission) Using Live Line Stick Technique E/P-PTd-3-PS-9	Maintain Energised Lines (Transmission) Using Bare Hand Technique E/P-PTd-3-PS-10	Maintain Bare Hand Technique on a Helicopter Platform E/P-PTd-3-PS-11	Install and Maintain De-Energised MV Underground Polymeric and Ppaper insulated Insulated Cable E/P-PTd-3-PS-12	

	Install and Maintain Electrical Equipment (Network Infrastructure) E/P-PTd-3-PS-13	Solve Problems in Extra-Low Voltage, Single Path Circuits E/P-PTd-3-PS-14	Solve Problems in Multiple Path DC Circuits E/P-PTd-3-PS-15	Solve Problems in Electromagnetic Circuits E/P-PTd-3-PS-16	Inspect Overhead Structures and Electrical Apparatus (Poles and Structures) E/P-PTd-3-PS-17
	Conduct Visual Checking and Treatment of Poles and Structures E/P-PTd-3-PS-18	Locate and Test Faults in Underground Power Cables E/P-PTd-3-PS-19	Install, Replace and Inspect Active and Reactive Energy Meters and Associated Equipment E/P-PTd-3-PS-20	Install and Maintain Traction Bonds E/P-PTd-3-PS-21	Install and Maintain Overhead Distribution Network Infrastructure E/P-PTd-3-PS-22
	Install and Maintain Overhead Traction Configurations E/P-PTd-3-PS-23	Install and Maintain Overhead Traction Equipment and Components E/P-PTd-3-PS-24	Operate Road Rail Traction Height Access Equipment E/P-PTd-3-PS-25	Perform Rail Traction Switching Operation to a Given Schedule E/P-PTd-3-PS-26	Install and Maintain Network Infrastructure LV and MV Underground Cables E/P-PTd-3-PS-27
	Inspect, Maintain and Restore Energised LV Overhead Distribution Network Infrastructure E/P-PTd-3-PS-28	Install and Maintain Network Infrastructure Electrical Equipment E/P-PTd-3-PS-29			

Level 4

Sector: Energy/Power						Code: E/P-PTd-3
Occupation: Power Transmission and Distribution, Installation and Maintenance						
Level of RTQF: 4						
Chart of Competency Units and Codes:						
Generic Competencies	Apply Communication L4 GC/COM/4	Apply Digital Literacy L4 GC/DL/4	Apply Employability L4 GC/Emp/4	Apply Environmental Literacy L4 GC/Env/4	Apply Entrepreneurship L4 GC/Ent/4	
Common Competencies	Monitor and Implement Environmental Plans and Procedures E/P-PTd-4-PS-1	Use Engineering Applications Software E/P-PTd-4-PS-2	Develop, Enter and Verify Programmes for PLC E/P-PTd-4-PS-3	Install and Configure Computer Operating System and Software E/P-PTd-4-PS-4	Set up and Configure Basic Local Area Network E/P-PTd-4-PS-5	
Core Competencies	Maintain HV Power System Circuit Breakers E/P-PTd-4-PS-6	Terminate and Connect Components, Cables Wiring and Conductors for Electronic Circuits E/P-PTd-4-PS-7	Investigate Quality of Electrical Power Supply Issues E/P-PTd-4-PS-8	Maintain Voltage Regulating Equipment (Capacitor Banks) E/P-PTd-4-PS-9	Install HV Plant and Equipment E/P-PTd-4-PS-10	
	Analyse and Appraise Fault and Outage Data E/P-PTd-4-PS-11	Draft and Layout Overhead and Ground Transmission Extension E/P-PTd-4-PS-12	Maintain Distribution Field Devices E/P-PTd-4-PS-13	Commission Distribution Field Devices E/P-PTd-4-PS-14	Respond to Technical Enquiries and Requests E/P-PTd-4-PS-15	

	Organise and Implement Line and Easement Surveys E/P-PTd-4-PS-16	Install and Maintain Traction Network Wiring System E/P-PTd-4-PS-17	Install and Maintain Polymeric Specialised Underground Cables E/P-PTd-4-PS-18	Install and Maintain Oil and Gas Pressure System for Specialised Underground Cables E/P-PTd-4-PS-19	Maintain Energised Medium Voltage Distribution Overhead Electrical Apparatus (Operating Rod & Glove) E/P-PTd-4-PS-20
	Design Customer Substations E/P-PTd-4-PS-21	Draft and Layout Street Lighting System E/P-PTd-4-PS-22	Draft and Layout Distribution Substation Minor Upgrade E/P-PTd-4-PS-23	Develop LV Switching Schedule and Programme E/P-PTd-4-PS-24	Contribute to Coordinated MV Live Line Work E/P-PTd-4-PS-25
	Maintain Distribution Field Devices E/P-PTd-4-PS-26	Commission Distribution Field Device E/P-PTd-4-PS-27	Respond to Technical Enquiries and Requests E/P-PTd-4-PS-28	Design Overhead Distribution System Installation E/P-PTd-4-PS-29	Design Distribution Substations E/P-PTd-4-PS-30
	Design Public Lighting System Installation E/P-PTd-4-PS-31	Investigate Quality of Supply Issues E/P-PTd-4-PS-32	Organise and Implement Line and Easement Surveys E/P-PTd-4-PS-33	Commission Network Protection and Control System (Interdependent) E/P-PTd-4-PS-34	Test and Maintain Metering Scheme E/P-PTd-4-PS-35
	Perform Accuracy Checks on Instrument Transformers E/P-PTd-4-PS-36	Design Underground Distribution System Installation E/P-PTd-4-PS-37			

Level 5

Sector: Energy/Power						Code: E/P-PTd-5
Occupation: Power Transmission and Distribution, Installation and Maintenance						
Level of RTQF: 5						
Chart of Competency Units and Codes:						
Generic Competencies	Apply Communication L5 GC/COM/5	Apply Digital Literacy L5 GC/DL/5	Apply Employability L5 GC/Emp/5	Apply Environmental Literacy L5 GC/Env/5	Apply Entrepreneurship L5 GC/Ent/5	
Common Competencies	Manage Occupational Health and Safety Policy and Procedures E/P-PTd-5-PS-1	Develop, Implement and Monitor Environmental Management Systems E/P-PTd-5-PS-2	Manage and Ccoordinate permit Permit to work Work systemSystem E/P-PTd-5-PS-3	Manage First Response Team Operations E/P-PTd-5-PS-4	Manage Personal Work Priorities and Professional Development E/P-PTd-5-PS-5	
	Perform Cost Estimations E/P-PTd-5-PS-6	Use Engineering Application Software E/P-PTd-5-PS-7	Manage Quality Control Procedures E/P-PTd-5-PS-8			
Core Competencies	Solve Problems in Electromagnetic Circuits E/P-PTd-5-PS-9	Provide Computational Solutions to Power Engineering Problems E/P-PTd-5-PS-10	Solve Problems in Complex Multiple Path Power Circuits E/P-PTd-5-PS-11	Solve Problems in Complex Poly Phase Power Circuits E/P-PTd-5-PS-12	Solve Problems in D.C. Power Supplies with Single Phase Input E/P-PTd-5-PS-13	
	Solve Problems in Digital Components of Electronic Apparatus E/P-PTd-5-PS-14	Manage Electricity Supply Industry OHS Management System E/P-PTd-5-PS-15	Coordinate and Direct Switching Schedules E/P-PTd-5-PS-16	Coordinate Vegetation Control Work E/P-PTd-5-PS-17	Develop Planned Outage Strategies E/P-PTd-5-PS-18	

	Establish and Manage Geographical Information Systems Data E/P-PTd-5-PS-19	Coordinate LV Distribution Network Demand E/P-PTd-5-PS-20	Coordinate HV Transmission and Sub-Transmission Networks E/P-PTd-5-PS-21	Maintain Network Protection and Control System (Interdependent) E/P-PTd-5-PS-22	Manage Electrical Infrastructure Projects E/P-PTd-5-PS-23
	Review Asset Management Strategies E/P-PTd-5-PS-24	Develop HV and LV Distribution Protection Systems E/P-PTd-5-PS-25	Prepare and Manage Detailed Construction Plans for Electrical System Infrastructure E/P-PTd-5-PS-26	Develop HV Switching Schedule and Programme E/P-PTd-5-PS-27	Coordinate Permit Procedures E/P-PTd-5-PS-28

4. Leather Sector

4.1. Leather Processing

Leather processing is under the leather sector; one of EASTRIP's priority sectors. Based on the RTQF for Ethiopia, Kenya and Tanzania, Levels 2-5 occupational standards for leather processing are harmonised as indicated in Figure 7 below. The list of competencies in their categories are provided as well. However, the detailed OS can be found on the IUCEA website.

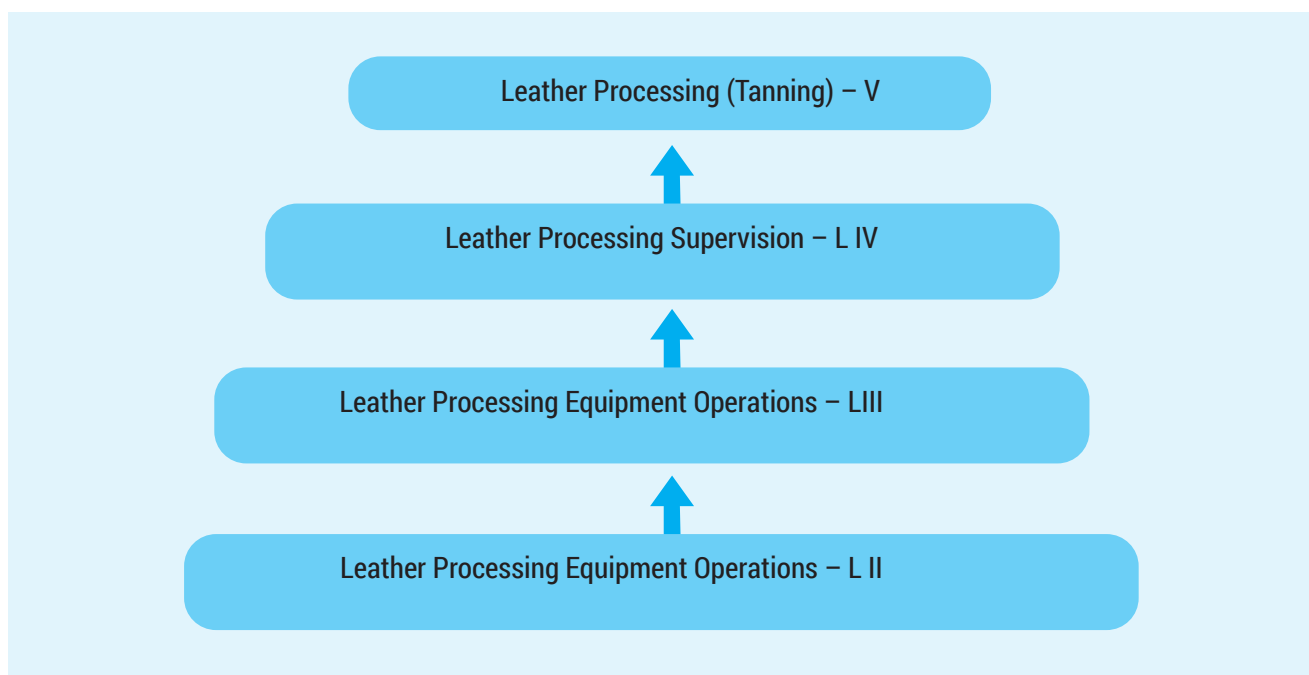


Figure 7: Occupational Standard Chart for Leather Processing

Level 2

Sector: Leather						Code: L-LPEO
Occupation: Leather Processing Equipment Operations						
Level of RTQF 2						
Chart of Competency Units and Codes:						
Generic Competencies	Apply Communication L2 GC/COM/2	Apply Numeracy L2 GC/NUM/2	Apply Digital Literacy L2 GC/ DL/2	Apply Employability L2 GC/Emp/2	Apply Teamwork L2 GC/TW/2	
	Apply Environmental Literacy L2 GC/Env/2	Apply Entrepreneurship L2 GC/Ent/2				
Common Competencies	Apply Quality Standards L-LPEO-2-CIS-1					
Core Competencies	Operate Machines to Prepare Hides or Skins for Tanning L-LPEO-2-PS-2	Operate Machine to Crust Leather L-LPEO-2-PS-3	Perform Fell Mmongering (Beam House) Processes L-LPEO-2-PS-4	Undertake Receival, Storage, Handling and Preservation of Materials or Products L-LPEO-2-PS-5	Perform Minor Maintenance L-LPEO-2-PS-6	
	Prepare Chemicals to a Formula L-LPEO-2-PS-7	Perform Tasks to Support Production L-LPEO-2-PS-8	Operate Mobile Load Shifting Equipment L-LPEO-2-PS-9	Trim Hides, Skins or Leather L-LPEO-2-PS-10	Sort, Grade or Class Hides, Skins or Leather L-LPEO-2-PS-11	
	Use Drum or Vessel to Prepare or Tan Hides and Skins L-LPEO-2-PS-12	Use Drum or Vessel to Crust Hides, Skins or Leather L-LPEO-2-PS-13	Perform Drying Operation L-LPEO-2-PS-14	Operate Machines to Finish Leather L-LPEO-2-PS-15		

Level 3

Sector: Leather						Code: L-LPEO
Occupation: Leather Processing Equipment Operations						
Level of RTQF 3						
Chart of Competency Units and Codes:						
Generic Competencies	Apply Communication L3 GC/COM/3	Apply Numeracy L3 GC/NUM/3	Apply Digital Literacy L3 GC/DL/3	Apply Teamwork L3 GC/TW/3	Apply Employability L3 GC/Emp/3	
	Apply Environmental Literacy L3 GC/Env/3	Apply Entrepreneurship L3 GC/Ent/3				
Common Competencies	Apply Quality Control L-LPEO-3-CIS-1					
Core Competencies	Monitor Technical Process L-LPEO-3-CIS-2	Determine Suitability of Hides, Skins and Leathers for End Use L-LPEO-3-CIS-3	Monitor and Coordinate Tannery Waste Treatment L-LPEO-3-CIS-4	Participate in Production Planning Processes L-LPEO-3-CIS-5	Support Continuous Improvement Systems and Processes L-LPEO-3-CIS-6	

Level 4

Sector: Leather						Code: L-LPS
Occupation: Leather Processing Supervision						
Level of RTQF 4						
Chart of Competency Units and Codes:						
Generic Competencies	Apply Communication L4 GC/COM/4	Apply Digital Literacy L4 GC/DL/4	Apply Employability L4 GC/Emp/4	Apply Environmental Literacy L4 GC/Env/4	Apply Entrepreneurship L4 GC/Ent/4	
Common Competencies	Establish Quality Standards L-LPS-4-CIS-1	Migrate to New Technology L-LPS-4-KTS-2				
Core Competencies	Manage Technical Processes L-LPS-4-CIS-3	Select and Test Raw Materials L-LPS-4-PS-4	Participate in Product Engineering L-LPS-4-CIS-5	Plan and Implement Production within a Work Team L-LPS-4-CIS-6	Implement Continuous Improvement L-LPS-4-CIS-7	
	Coordinate and Set up Machines for Product Change L-LPS-4-CIS-8					

Level 5

Sector: Leather					Code: L-LP
Occupation: Leather Processing (Tanning)					
Level of RTQF 5					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L5 GC/COM/5	Apply Employability L5 GC/Emp/5	Apply Digital Literacy L5 GC/DL/5	Apply Environmental Literacy L5 GC/Env/5	Apply Entrepreneurship L5 GC/Ent/5
Common Competencies					
Core Competencies	Select Raw Hides and Skins for leather Processing L-LP-5-PS-1	Demonstrate an understanding of various Curing Techniques and carry out Curing Techniques in Raw hides and skins L-LP-5-KU-2	Demonstrate an understanding of Pre-tanning and carry out the Pre-tanning Process L-LP-5-KU-3	Demonstrate an understanding of Tanning and conduct the different types of Tanning process L-LP-5-KU-4	Demonstrate an understanding of Post-tanning and carry out the Post-tanning process L-LP-5-KU-5
	Carry out Finishing Operations L-LP-5-PS-6	Demonstrate an understanding of tannery waste Management L-LP-5-KU-7	Select and Operate Machines required for performing different Operations in leather Production L-LP-5-PS-8		

4.2. Footwear and Leather Products Manufacturing

Footwear and leather products manufacturing is under the leather sector; one of EASTRIP's priority sectors. Based on the RTQF for Ethiopia, Kenya and Tanzania, Levels 2-5 occupational standards for foot wear and leather products manufacturing are harmonised as indicated in Figure 8 below. The list of competencies in their categories are provided as well. However, the detailed OS can be found on the IUCEA website.

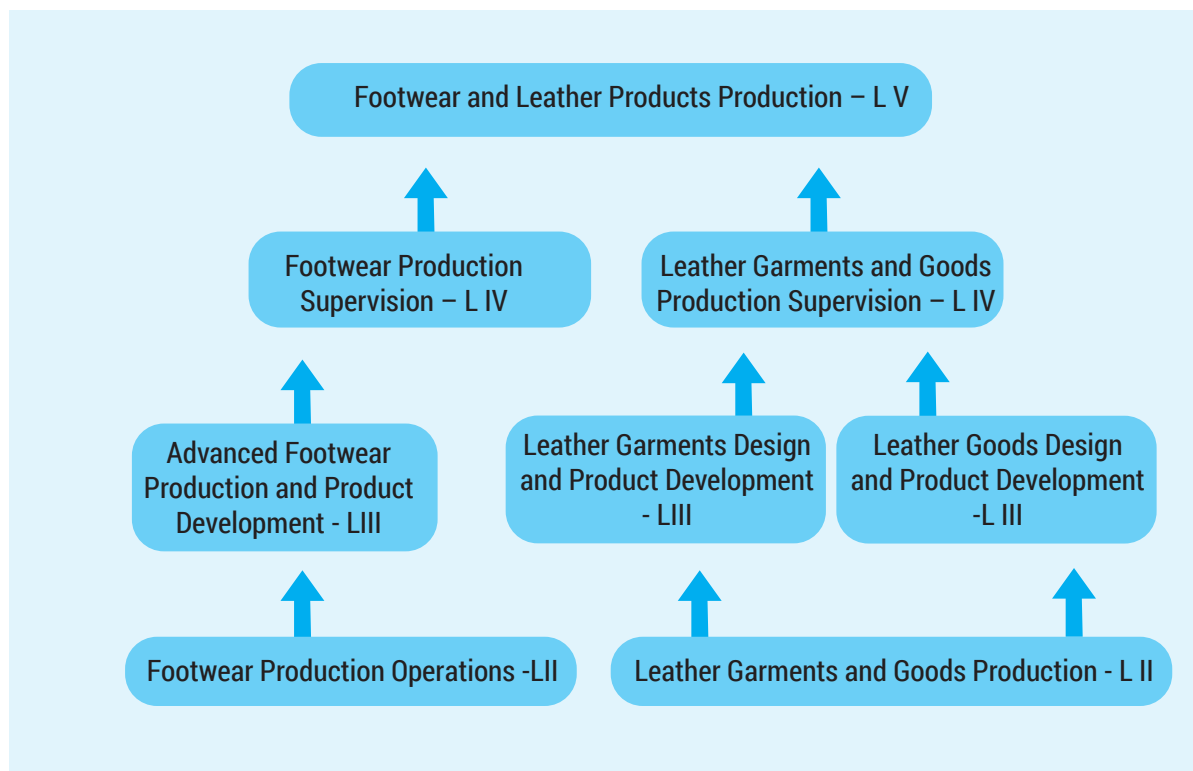


Figure 8: Occupational Standard Chart for Footwear and leather products manufacturing

Level 2

Sector: Leather / Footwear Products					Code: L-FPO
Occupation: Footwear Production Operations					
Level of RTQF 2					
Chart of Competency units and Codes:					
Generic Competencies	Apply Communication L2 GC/COM/2	Apply Numeracy L2 GC/NUM/2	Apply Digital Literacy L2 GC/DL/2	Apply Teamwork L2 GC/TW/2	Apply Employability L2 GC/Emp/2
	Apply Environmental Literacy L2 GC/Env/2	Apply Entrepreneurship L2 GC/Ent/2			
Common Competencies	Identify Footwear Product and Materials L-FPO-2-KTS -1	Perform Leather Grading L-FPO-2-KTS-2	Apply Quality Standards L-FPO-2-CIS -1	Standardise and Sustain 5S L-FPO-2-CIS-2	
Core Competencies	Cut Mmaterials by Hhand L-FPO-2-PS-1	Operate Ffootwear Ccutting Mmachines L-FPO-2-PS-2	Perform Pre-fabrication Works L-FPO-2-PS-3	Perform Closing of Uppers L-FPO-2-PS-4	Perform Moccasin Stitching Operations L-FPO-2-PS-5
	Perform Bottom Components Operations L-FPO-2-PS-6	Perform Basic Lasting Operations L-FPO-2-PS-7	Perform Footwear Finishing and Packaging L-FPO-2-PS-8		

Level 2

Sector: Leather/Footwear Products					Code: L-LGGP
Occupation: Leather Garments and Goods Production					
Level of RTQF 2					
Chart of Competency Unitss and Codes:					
Generic Competencies	Apply Communication L2 GC/COM/2	Apply Numeracy L2 GC/NUM/2	Apply Digital Literacy L2 GC/DL/2	Apply Teamwork L2 GC/TW/2	Apply Employability L2 GC/Emp/2
	Apply Environmental Literacy L2 GC/Env/2	Apply Entrepreneurship L2 GC/Ent/2			
Common Competencies	Perform Leather Grading L-LGPP-2-KTS-1	Apply Quality Standards L-LGPP-2-CIS -1	Standardise and sustain 5S L-LGPP-2-CIS-2		
Core Competencies	Perform Maintenance of Sewing Machines L-LGPP-2-PS-1	Cut Leather Garment and Goods Material L-LGPP-2-PS-2	Fabricate Leather Goods L-LGPP-2-PS-3	Fabricate Leather Garments L-LGPP-2-PS-4	Apply Finishing and Packaging of leather garments and goods products L-LGPP-2-PS-5

Level 3

Sector: Leather/Footwear Products					Code: L-AFPD
Occupation: Advanced Footwear Production and Product Development					
Level of RTQF 3					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L3 GC/COM/3	Apply Numeracy L3 GC/NUM/3	Apply Digital Literacy L3 GC/DL/3	Apply Teamwork L3 GC/TW/3	Apply Employability L3 GC/Emp/3
	Apply Environmental Literacy L3 GC/Env/3	Apply Entrepreneurship L3 GC/Ent/3			
Common Competencies	Apply Polymers in Footwear L-AFPD-3-CIS-1	Apply Quality Control L-AFPD-3-CIS-2	Maintain Quality System and Continuous Improvement L-AFPD-3-CIS-3	Lead Small Teams L-AFPD-3-KU-1	Improve Business Practice L-AFPD-3-KU-2
	Lead Workplace Communication L-AFPD-3-KU-3				
Core Competencies	Perform Manual Design and Pattern Making L-AFPD-3-PS-1	Perform Pattern Grading and Engineering L-AFPD-3-PS-2	Perform Mechanised Lasting L-AFPD-3-PS-3	Apply Advanced Footwear Lasting Techniques L-AFPD-3-PS-4	Perform Sole Operation L-AFPD-3-PS-5

Level 3

Sector: Leather/Footwear Products					Code: L-LGAPD
Occupation: Leather Garments Design and Product Development					
Level of RTQF 3					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L3 GC/COM/3	Apply Numeracy L3 GC/NUM/3	Apply Digital Literacy L3 GC/DL/3	Apply Teamwork L3 GC/TW/3	Apply Employability L3 GC/Emp/3
	Apply Environmental Literacy L3 GC/Env/3	Apply Entrepreneurship L3 GC/Ent/3			
Common Competencies	Monitor Implementation of Workplan/Activities L-LGAPD-3-CIS-1	Apply Quality Control L-LGAPD-3-CIS-2	Maintain Quality System and Continuous Improvement L-LGAPD-3-CIS-3		
Core Competencies	Apply Elements and Principles of Design L-LGAPD-3-PS-1	Apply Illustration Techniques of Leather Garments L-LGAPD-3-PS-2	Construct Basic Block and Develop Patterns of Leather Garments Manually L-LGAPD-3-PS-3	Develop Pattern of Leather Garments using CAD/CAM L-LGAPD-3-PS-4	Prepare Design and Sample of Leather Garments L-LGAPD-3-PS-5

Level 3

Sector: Leather/Footwear Products						Code: L-LGPD
Occupation: Leather Goods Design and Product Development						
Level of RTQF 3						
Chart of Competency Units and Codes:						
Generic Competencies	Apply Communication L3 GC/COM/3	Apply Numeracy L3 GC/NUM/3	Apply Digital Literacy L3 GC/DL/3	Apply Teamwork L3 GC/TW/3	Apply Employability L3 GC/Emp/3	
	Apply Environmental Literacy L3 GC/Env/3	Apply Entrepreneurship L3 GC/Ent/3				
Common Competencies	Monitor Implementation of Workplan/Activities L-LGPD-3-CIS-1	Apply Quality Control L-LGPD-3-CIS-2	Maintain Quality System and Continuous Improvement L-LGPD-3-CIS-3			
Core Competencies	Apply Elements and Principles of Design L-LGPD-3-PS-1	Apply Illustration Techniques of Leather Goods L-LGPD-3-PS-2	Develop pattern of Leather Goods Mmanually L-LGPD-3-PS-3	Develop Pattern of Leather Goods using CAD/ CAM L-LGPD-3-PS-4	Make Handcraft Leather Goods L-LGPD-3-PS-5	
	Prepare Design and Sample of Leather Goods L-LGPD-3-PS-6					

Level 4

Sector: Leather/Footwear Products						Code: L-FPS
Occupation: Footwear Production Supervision						
Level of RTQF4						
Chart of Competency Units and Codes:						
Generic Competencies	Apply Communication L4 GC/COM/4	Apply Digital Literacy L4 GC/DL/4	Apply Employability L4 GC/Emp/4	Apply Environmental Literacy L4 GC/Env/4	Apply Entrepreneurship L4 GC/Ent/4	
Common Competencies	Coordinate Die Making Operations L-FPS-4-CIS-1	Plan and Organise Work Activities L-FPS-4-CIS-2	Establish Quality Standards L-FPS-4-CIS-3	Develop Individuals and Team L-FPS-4-KU-1	Manage Continuous Improvement System L-FPS-4-KU-2	
	Manage and Maintain Medium Business Operations L-FPS-4-KU-3					
Core Competencies	Apply Fashion and Illustration Techniques L-FPS-4-PS-1	Prepare Footwear Design and Patterns Using CAD/CAM L-FPS-4-PS-2	Coordinate Product Development and Processes L-FPS-4-PS-3	Perform Footwear and Material Testing L-FPS-4-PS-4	Calculate Product Costing L-FPS-4-PS-5	
	Supervise Footwear Production Operations L-FPS-4-PS-6					

Level 4

Sector: Leather/Footwear Products					Code: L-LGPS
Occupation: Leather Garments and Goods Production Supervision					
Level of RTQF 4					
Chart of Competency Units and Codes:					
Generic Competencies	Apply Communication L4 GC/COM/4	Apply Digital Literacy L4 GC/DL/4	Apply Employability L4 GC/Emp/4	Apply Environmental Literacy L4 GC/Env/4	Apply Entrepreneurship L4 GC/Ent/4
Common Competencies	Migrate to New Technology L-LGPS-4-CIS-1	Establish Quality Standards L-LGPS-4-CIS-2	Develop Individuals and Teams L-LGPS-4-KU-1		
Core Competencies	Calculate Cost of Leather Garment and Goods L-LGPS-4-PS-1	Coordinate the Development of Products and Processes L-LGPS-4-PS-2	Perform Material Testing on Leather Garments and Goods L-LGPS-4-PS-3	Supervise Leather Garment and Goods Production L-LGPS-4-PS-4	

Level 5

Sector: Leather/Footwear Products						Code: L-FLPP
Occupation: Footwear and Leather Products Production						
Level of RTQF 5						
Chart of Competency Units and Codes:						
Generic Competencies	Apply Communication L5 GC/COM/5	Apply Digital Literacy L5 GC/DL/5	Apply Employability L5 GC/Emp/5	Apply Environmental Literacy L5 GC/Env/5	Apply Entrepreneurship L5 GC/Ent/5	
Common Competencies	Apply Advanced Quality Control and Standards L- FLPP -5-CIS-1	Carry Out Footwear and Leather Products Measurements and Calculations L- FLPP -5-CIS-2				
Core Competencies	Demonstrate Knowledge of the Basics of Upholstery Manufacture L- FLPP -5-KU-4	Demonstrate Knowledge of the Processes in Upholstery Leather Manufacture L- FLPP -5-KU-5	Carry out and conduct Advanced Operations within Footwear and Leather Products L- FLPP -5-PS-2	Evaluate Physical and Chemical Test for Footwear and Leather Products L-FLPP -5-CIS-7	Produce Upholstery Products L-FLPP -5-PS-8	
	Dye Leather for Leather Footwear and Leather Products Manufacture L- FLPP -5-KU-9	Machine Form and Embellish Components of Footwear and Leather Products L- FLPP -5-KU-10	Demonstrate Knowledge of the Chemicals and Auxiliaries used for Upholstery Manufacture L- FLPP -5-KU-6			

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