

	Curriculum Document			
Curriculum Code	Curriculum Title		[insert image here]	
682201-003	Furniture Assembler			
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Learner QDF Signature

Date

QDF Signature

Date

DQP Representative Signature

Date

Table of content

SECTION 1: CURRICULUM SUMMARY.....	3
1. Occupational Information.....	3
1.1 Associated Occupation.....	3
1.2 Occupation or Specialisation Addressed by this Curriculum.....	3
1.3 Alternative Titles used by Industry.....	3
2. Curriculum Information.....	3
2.1 Curriculum Structure.....	3
2.2 Entry Requirements.....	3
3. Assessment Quality Partner Information.....	3
4. Part Qualification Curriculum Structure.....	4
SECTION 2: OCCUPATIONAL PROFILE.....	5
1. Occupational Purpose.....	5
2. Occupational Tasks.....	5
3. Occupational Task Details.....	5
SECTION 3: CURRICULUM COMPONENT SPECIFICATIONS.....	6
SECTION 3A: KNOWLEDGE MODULE SPECIFICATIONS.....	6
1. 682201003-00-01-KM-01, Introduction to furniture manufacturing, NQF Level 2, Credits 2.....	7
2. 682201003-00-01-KM-02, Furniture assembling department and operations, NQF Level 2, Credits 4	15
3. 682201003-00-01-KM-03, Computer technology and operations, NQF Level 2, Credits 4.....	20
SECTION 3B: PRACTICAL SKILL MODULE SPECIFICATIONS.....	25
1. 682201003-00-01-PM-01, Join and assemble cut components in furniture manufacturing, NQF Level 2, Credits 10.....	26
SECTION 3C: WORK EXPERIENCE MODULE SPECIFICATIONS.....	34
1. 682201003-00-WM-01, Furniture assembling operations, NQF Level 2, Credits 14.....	35
SECTION 4: STATEMENT OF WORK EXPERIENCE.....	42

SECTION 1: CURRICULUM SUMMARY

1. Occupational Information

1.1 Associated Occupation

682201: Cabinet Maker

1.2 Occupation or Specialisation Addressed by this Curriculum

682201001: Furniture Maker

1.3 Alternative Titles used by Industry

- None

2. Curriculum Information

2.1 Curriculum Structure

This qualification is made up of the following compulsory Knowledge and Practical Skill Modules:

Knowledge Modules:

- 682201003-00-01-KM-01, Introduction to furniture manufacturing, NQF Level 2, Credits 2
- 682201003-00-01-KM-02, Furniture assembling department and operations, NQF Level 2, Credits 4
- 682201003-00-01-KM-03, Computer technology and operations, NQF Level 2, Credits 4

Total number of credits for Knowledge Modules: 10

Practical Skill Modules:

- 682201003-00-01-PM-01, Join and assemble cut components in furniture manufacturing, NQF Level 2, Credits 10

Total number of credits for Practical Skill Modules: 10

This qualification also requires the following Work Experience Modules:

- 682201003-00-01-WM-01, Furniture assembling operations, NQF Level 2, Credits 14

Total number of credits for Work Experience Modules: 14

2.2 Entry Requirements

NQF 1

3. Assessment Quality Partner Information

Name of body: Fibre Processing and Manufacturing SETA

Address of body: 1 Newton Avenue, Killarney, 2193

Contact person name: Me Ansie Nagel

Contact person work telephone number: 0800007395

4. Part Qualification Curriculum Structure

None

SECTION 2: OCCUPATIONAL PROFILE

1. Occupational Purpose

A Furniture Assembler join and assemble cut furniture components to produce furniture or furniture components.

2. Occupational Tasks

- Assembles carcasses and case goods and fit hinges, handles, runners and legs using power tools such as drills, routers, biscuit jointers, jig saws and mitre saws and hand tools such as hammers, screwdrivers, hand saws, etc. (NQF Level 2)

3. Occupational Task Details

3.1. Assembles carcasses and case goods and fit hinges, handles, runners and legs using power tools such as drills, routers, biscuit jointers, jig saws and mitre saws and hand tools such as hammers, screwdrivers, hand saws, etc. (NQF Level 2)

Unique Product or Service:

- Assembled components, carcasses, case goods and furniture

Occupational Responsibilities:

- Operate a range of tools and equipment to produce assembled carcasses and case goods

Occupational Contexts:

- Furniture assembling department

SECTION 3: CURRICULUM COMPONENT SPECIFICATIONS

SECTION 3A: KNOWLEDGE MODULE SPECIFICATIONS

List of Knowledge Modules for which Specifications are included

- 682201003-00-01-KM-01, Introduction to furniture manufacturing, NQF Level 2, Credits 2
- 682201003-00-01-KM-02, Furniture assembling department and operations, NQF Level 2, Credits 4
- 682201003-00-01-KM-03, Computer technology and operations, NQF Level 2, Credits 4

1. 682201003-00-01-KM-01, Introduction to furniture manufacturing, NQF Level 2, Credits 2

1.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of the manufacturing of furniture.

The learning will enable learners to demonstrate an understanding of:

- KM-01-KT01: Wooden and board furniture types, styles and construction (10%)
- KM-01-KT02: Timber technology (10%)
- KM-01-KT03: Composite board technology (10%)
- KM-01-KT04: Ergonomics related to furniture manufacturing (10%)
- KM-01-KT05: Processes in manufacturing of furniture (10%)
- KM-01-KT06: Productivity, quality and efficiency (10%)
- KM-01-KT07: Drawings for furniture manufacturing (10%)
- KM-01-KT08: Health and safety in the furniture machine/assembly/finishing department (10%)
- KM-01-KT09: Measuring and calculations (10%)
- KM-01-KT10: Compressor and compressed air (10%)

1.2 Guidelines for Topics

1.2.1. KM-01-KT01: Wooden and board furniture types, styles and construction (10%)

Topic elements to be covered include:

- KT0101 History of furniture
- KT0102 Styles and designs of furniture
- KT0103 Types, categories and uses of furniture
- KT0104 Antique and traditional furniture
- KT0105 Do-it-yourself (DIY) furniture
- KT0106 Furniture construction and components
- KT0107 Quality and customer requirements

Internal Assessment Criteria and Weight

- IAC0101 The history of furniture and furniture production is briefly outlined
- IAC0102 The styles and designs of furniture are listed and described along with the special considerations linked to each
- IAC0103 Antique and traditional furniture and furniture production are compared and contrasted
- IAC0104 Do-It-Yourself (DIY) furniture are discussed in terms of the considerations during their production
- IAC0105 The different types of furniture are described and matched to their uses
- IAC0106 The principles of furniture construction are outlined
- IAC0107 The functions of different components are listed
- IAC0108 The quality requirements for different types of furniture are outlined

- IAC0109 Customer requirements are identified and discussed

(Weight 10%)

1.2.2. KM-01-KT02: Timber technology (10%)

Topic elements to be covered include:

- KT0201 Origin of timber
- KT0202 Wood manufacturing principles
- KT0203 Types, properties and characteristics of timber
- KT0204 Structure of the timber
- KT0205 Drying processes
- KT0206 Timber products and uses
- KT0207 Timber used in construction and boat industry
- KT0208 Timber quality (faults and defects)
- KT0209 Related raw material used in the manufacturing of furniture

Internal Assessment Criteria and Weight

- IAC0201 The origin of different kinds of timber is listed
- IAC0202 The drying process is outlined and the reasons for each step in the process is clarified
- IAC0203 The effect of moisture in timber on timber products is explained to motivate the need for the drying process
- IAC0204 The different types of timber are listed along with their properties, characteristics and uses
- IAC0205 Timber structure is outlined along with the impact structure have on manufacturing
- IAC0206 The different products and uses of timber are described in order to ensure that timber is selected according to specification
- IAC0207 The specifications of timber used in the construction and boat industry are listed and explained
- IAC0208 Timber defects are listed and their impact on timber quality is explained

(Weight 10%)

1.2.3. KM-01-KT03: Composite board technology (10%)

Topic elements to be covered include:

- KT0301 Composite board manufacturing principles
- KT0302 Types and characteristics of boards
- KT0303 Composition of boards
- KT0304 Timber and board products and uses
- KT0305 Board used in construction and boat industry
- KT0306 Board quality (faults and defects)

Internal Assessment Criteria and Weight

- IAC0301 The manufacture of different kinds of boards is described
- IAC0302 The effect of moisture in board on board products is explained to motivate the need for proper storage
- IAC0303 The different types of boards are listed along with their properties, characteristics and uses
- IAC0304 Composite board structure is outlined along with the impact structure have on manufacturing
- IAC0305 The different products and uses of boards are described in order to ensure that composite boards are selected according to specification
- IAC0306 Board defects are listed and their impact on board quality is explained
- IAC0307 Manufacturing principles and best practices such as economical cutting of boards are explained

(Weight 10%)

1.2.4. KM-01-KT04: Ergonomics related to furniture manufacturing (10%)

Topic elements to be covered include:

- KT0401 Definition
- KT0402 Principles
- KT0403 Purpose
- KT0404 Standard measurements for furniture
- KT0405 Lifting and stacking
- KT0406 Moving materials and equipment

Internal Assessment Criteria and Weight

- IAC0401 Ergonomics is defined in terms of its applications and impact in furniture manufacture
- IAC0402 The principles and best practices of ergonomics in the industry is outlined
- IAC0403 The purpose of ergonomics is described in terms of the effect on the finished product and the production processes
- IAC0404 The need for standard sizes in furniture manufacture is motivated with reference to ergonomics
- IAC0405 Lifting and moving equipment are listed and their uses describe
- IAC0406 The lifting and moving equipment's impact on ergonomics during production is outlined
- IAC0407 Material storage (such as stacking) is described with reference to the different sizes, the use of spacers and the avoidance of damage
- IAC0408 The correct equipment is used based on the situation such as ladders of sufficient lengths for the heights involved
- IAC0409 The principles of ergonomics are applied to lifting to identify correct lifting procedures and minimizing the risk of injury to self

(Weight 10%)

1.2.5. KM-01-KT05: Processes in manufacturing of furniture (10%)

Topic elements to be covered include:

- KT0501 Process flow and productivity
- KT0502 Operations in the process flow
- KT0503 Routing sheets
- KT0504 Cutting lists
- KT0505 Product specifications
- KT0506 Finishing aids

Internal Assessment Criteria and Weight

- IAC0501 The process of furniture manufacture is briefly outlined
- IAC0502 The operations in furniture manufacture such as machining, assembling and finishing operations are reviewed
- IAC0503 The finishing processes of furniture is outlined
- IAC0504 The importance of productivity and methods to enhance productivity are discussed
- IAC0505 The role of the routing sheet is described
- IAC0506 Job card information such as component sizes and details, shoulder-to-shoulder size and chemicals to use is explained
- IAC0507 Product specifications are understood and their impact on the manufacturing process is discussed in terms of the process flow and methods that will be used

(Weight 10%)

1.2.6. KM-01-KT06: Productivity, quality and efficiency (10%)

Topic elements to be covered include:

- KT0601 Productivity
- KT0602 Interruptions
- KT0603 Waste management
- KT0604 Timber and board quality
- KT0605 Timber and board faults and defects
- KT0606 Product quality of the machining/assembling/finishing process and defects

Internal Assessment Criteria and Weight

- IAC0601 The importance of planning the job in avoiding delays is explained
- IAC0602 The importance of productivity is discussed
- IAC0603 The factors influencing productivity are outlined along with their impact on manufacturing processes
- IAC0604 The role of accurate cutting lists, specification sheets and routing sheets are described

- IAC0605 The importance of minimizing waste is discussed
- IAC0606 The need to reuse raw material (timber/board) and store reusable raw materials is motivated
- IAC0607 The role of planned interruptions is explained
- IAC0608 The procedures for dealing with unplanned interruption are outlined

(Weight 10%)

1.2.7. KM-01-KT07: Drawings for furniture manufacturing (10%)

Topic elements to be covered include:

- KT0701 Sketches and engineering drawings
- KT0702 Isometric views
- KT0703 Lines used
- KT0704 Hidden detail
- KT0705 Legends and symbols

Internal Assessment Criteria and Weight

- IAC0701 Sketches and engineering drawings are identified according to type and use
- IAC0702 Engineering drawings are correctly interpreted and the relevant actions and processes are identified
- IAC0703 Line structure and dimensions are correctly identified and their meanings described
- IAC0704 The interpretation is done methodically to ensure that all the important details are incorporated into the manufacturing process
- IAC0705 Work pieces to be used are identified based on the engineering drawing
- IAC0706 Hidden details are listed and the actions to be taken are outlined

(Weight 10%)

1.2.8. KM-01-KT08: Health and safety in the furniture machine/assembly/finishing department (10%)

Topic elements to be covered include:

- KT0801 BCOE Act
- KT0802 OHS Act
- KT0803 General hazards in the workshop
- KT0804 Fire extinguishers and uses
- KT0805 Evacuation plans and signage in the workshop
- KT0806 Demarcation lines
- KT0807 Safe working procedures in the various manufacturing operations
- KT0808 Machine safety
- KT0809 Personal safety

- KT0810 Hazards and incidents
- KT0811 Lock-out devices and procedures

Internal Assessment Criteria and Weight

- IAC0801 Routines are described in accordance with safety and work requirements
- IAC0802 Common and critical faults of equipment are listed and described to aid early identification and the proper channels for fault reporting are given
- IAC0803 The importance of keeping the work area free from hazards is explained
- IAC0804 Fire extinguishers and other methods of fire control are listed, their uses and applications outlined
- IAC0805 The importance of not tampering with fire extinguishers is clearly explained
- IAC0806 The evacuation plan is understood and memorized to ensure compliance in hazardous situations
- IAC0807 Signage in the workshop is described and the meanings are explained
- IAC0808 The different demarcation lines and their functions are described to ensure activities such as stacking is done in appropriate places
- IAC0809 Machine safety devices and their functions are given and the installation methods are outlined
- IAC0810 The safety checks for all machines used such as checking for blockages, testing emergency buttons and ensuring lock-out device availability are listed in order
- IAC0811 The personal protective equipment to be used in the workshop is described
- IAC0812 The protocol for incidents and injuries is described and the reporting channels for incidents and injuries are outlined

(Weight 10%)

1.2.9. KM-01-KT09: Measuring and calculations (10%)

Topic elements to be covered include:

- KT0901 Conversions
- KT0902 Taking accurate measures
- KT0903 Calculations
- KT0904 Angles
- KT0905 Tape Measure
- KT0906 Vernier calipers
- KT0907 Measuring cups
- KT0908 Viscosity cups

Internal Assessment Criteria and Weight

- IAC0901 Measuring equipment are identified and matched to their uses
- IAC0902 Correct measuring units are listed along with the scenarios in which they are used

- IAC0903 Conversions between units are demonstrated
- IAC0904 Angles are correctly identified, measured and calculated
- IAC0905 Measuring equipment are used accurately to get correct sizes and meet product specifications
- IAC0906 The considerations for using tape measures to ensure accuracy are listed
- IAC0907 The considerations for using Vernier calipers to ensure accuracy are listed
- IAC0908 The considerations for using measuring cups to ensure accuracy are listed
- IAC0909 The considerations for using viscosity cups to ensure accuracy are listed

(Weight 10%)

1.2.10. KM-01-KT10: Compressor and compressed air (10%)

Topic elements to be covered include:

- KT1001 Compressed air
- KT1002 Compressed air generation
- KT1003 Compressed air properties
- KT1004 Compressed air uses
- KT1005 Identify and solve problems
- KT1006 Hazards and risks
- KT1007 Pneumatic tools

Internal Assessment Criteria and Weight

- IAC1001 The concept of compressed air is described
- IAC1002 The process of compressed air generation is outlined
- IAC1003 Different compressors are identified and their advantages and disadvantages are outlined
- IAC1004 The properties of compressed air are listed and linked to the uses thereof
- IAC1005 Hazards arising from various air tools, including noise, vibration, fumes, hoses and connectors are explained
- IAC1006 The safety requirements and procedures of working with compressed air is outlined and linked to the hazards they are meant to address
- IAC1007 The standard operating procedures for pneumatic devices such as start-up and shut down procedures are outlined
- IAC1008 Common and critical faults of equipment are listed and described to aid early identification and the proper channels for fault reporting are given
- IAC1009 The importance of setting the correct pressure on all pneumatic tools and machines is explained
- IAC1010 The importance of draining water out of airlines is explained
- IAC1011 The proper colour coding for airlines is described

(Weight 10%)

1.3 Provider Programme Accreditation Criteria

Physical Requirements:

- The provider must have lesson plans and structured learning material or provide learners with access to structured learning material that addresses all the topics in all the knowledge modules.

Human Resource Requirements:

- Lecturer/learner ratio of 1:20.
- Qualifications of lecturers: 5 years relevant experience or NQF 2 58227 with 2 years of experience

Legal Requirements:

- OHS compliant

1.4 Exemptions

- No exemptions, but the module can be achieved in full through a normal RPL process

2. 682201003-00-01-KM-02, Furniture assembling department and operations, NQF Level 2, Credits 4

2.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of the principles and procedures involved in basic assembly processes in the bulk production of furniture.

The learning will enable learners to demonstrate an understanding of:

- KM-02-KT01: Furniture assembling operations and techniques (20%)
- KM-02-KT02: Power tools used in the assembly shop (20%)
- KM-02-KT03: Pneumatic tools (20%)
- KM-02-KT04: Hand tools (20%)
- KM-02-KT05: Quality Control (20%)

2.2 Guidelines for Topics

2.2.1. KM-02-KT01: Furniture assembling operations and techniques (20%)

Topic elements to be covered include:

- KT0101 Types and purpose of joints
- KT0102 Definition and purpose of dry assembling
- KT0103 Using clamps, adhesive, screws and nails for assembling operations
- KT0104 Definition and purpose of sanding
- KT0105 Application of drilling, sawing, routing, beveling, stapling and cutting in the assembling process
- KT0106 Product specifications and quality

Internal Assessment Criteria and Weight

- IAC0101 Various types of joints are identified and the purpose of each is described
- IAC0102 Techniques for each joint is discussed
- IAC0103 The concept dry assembling and its purpose is explained
- IAC0104 Reasons and where to use clamps, adhesive, screws and nails in the assembling process is justified
- IAC0105 The purpose of sanding in the assembling process is reasoned
- IAC0106 The importance of applying product specifications consistently to achieve a quality assembled product is justified

(Weight 20%)

2.2.2. KM-02-KT02: Power tools used in the assembly shop (20%)

Topic elements to be covered include:

- KT0201 Types of power tools
- KT0202 Uses of power tools
- KT0203 Drilling bits, router bits, chuck keys and cutters

- KT0204 Maintenance and cleaning
- KT0205 Safety mechanisms and warning signals
- KT0206 Power tool operation
- KT0207 Safety procedures and requirements
- KT0208 Trouble shooting

Internal Assessment Criteria and Weight

- IAC0201 Colour coding of the machine is observed
- IAC0202 Sound and noise level when starting the machine is observed for possible faults and possible causes are listed
- IAC0203 Hazards associated with the use of different tools are defined
- IAC0204 Different tools in the cabinet making shop are identified according to their use
- IAC0205 Tool settings are described along with the procedures for achieving the correct settings
- IAC0206 The calibration procedures for tools are delineated
- IAC0207 The different drill bits and cutters are identified and their uses are described
- IAC0208 The attachment of drill bits and cutters is outlined
- IAC0209 Tool maintenance and cleaning procedures are described
- IAC0210 The importance of avoiding damage to cables, electrical wiring and parts is explained
- IAC0211 Tool lubrication is described with attention given to the process of excessive oil and lubricant removal
- IAC0212 Colour coding of power tools in the industry is discussed
- IAC0213 The safety mechanisms and warning signals of the different tools are described and their roles are discussed
- IAC0214 The operation processes of the different power tools are outlined
- IAC0215 Troubleshooting for common faults and problems of machines is described
- IAC0216 The role of noise in identifying machine faults is discussed in terms of the probable causes of the different noises and the corrective action necessary

(Weight 20%)

2.2.3. KM-02-KT03: Pneumatic tools (20%)

Topic elements to be covered include:

- KT0301 Principles of compressed air
- KT0302 Types of pneumatic tools
- KT0303 Uses
- KT0304 Maintenance
- KT0305 Staples and nails
- KT0306 Problem Solving

- KT0307 Hazards and risks

Internal Assessment Criteria and Weight

- IAC0301 The principles behind pneumatic tools are briefly outlined
- IAC0302 Different pneumatic tools are identified and their advantages and disadvantages are outlined
- IAC0303 The properties of pneumatic tools are listed and linked to the uses thereof
- IAC0304 The standard operating procedures for pneumatic tools such as start-up and shut down procedures are outlined
- IAC0305 The importance of setting the correct pressure on all pneumatic tools is explained
- IAC0306 Correct size staples and nails are matched to the product specifications and the given tool
- IAC0307 The importance of using the correct grease on the tools is explained
- IAC0308 Common problems when working with pneumatic tools are listed and corrective measures are described
- IAC0309 The role of safety pins on the tools is explained along with the consequences of breaking safety pins
- IAC0310 Hazards arising from various pneumatic tools, including noise, vibration, fumes, hoses and connectors are explained
- IAC0311 The safety requirements and procedures of working with compressed air is outlined and linked to the hazards they are meant to address
- IAC0312 Common and critical faults of equipment are listed and described to aid early identification and the proper channels for fault reporting are given

(Weight 20%)

2.2.4. KM-02-KT04: Hand tools (20%)

Topic elements to be covered include:

- KT0401 Types of hand tools
- KT0402 Uses
- KT0403 Maintenance
- KT0404 Attachments
- KT0405 Problem Solving
- KT0406 Hazards and risks

Internal Assessment Criteria and Weight

- IAC0401 Different hand tools are identified and their advantages and disadvantages are outlined
- IAC0402 The properties of hand tools are listed and linked to the uses thereof
- IAC0403 The standard operating procedures for hand tools such as start-up and shut down procedures are outlined
- IAC0404 The importance of attaining the correct settings on all hand tools is explained

- IAC0405 Correct size and type of attachments are matched to the product specifications and the given tool
- IAC0406 The importance of using the correct grease on the tools is explained
- IAC0407 Common problems when working with hand tools are listed and corrective measures are described
- IAC0408 The role of safety measures and devices on the tools is explained along with the consequences of breaking safety devices
- IAC0409 Hazards arising from various hand tools, including noise, vibration, fumes, hoses and connectors are explained
- IAC0410 The safety requirements and procedures of working with power tools is outlined and linked to the hazards they are meant to address
- IAC0411 Common and critical faults of equipment are listed and described to aid early identification and the proper channels for fault reporting are given

(Weight 20%)

2.2.5. KM-02-KT05: Quality Control (20%)

Topic elements to be covered include:

- KT0501 Timber, board or component quality
- KT0502 Machine quality
- KT0503 Process quality
- KT0504 Component and product quality
- KT0505 Faults and defects

Internal Assessment Criteria and Weight

- IAC0501 Timber, board and component defects are listed and their impact on the assembled product quality is explained
- IAC0502 The grading and classification of timber or board quality is outlined
- IAC0503 The quality requirements for different types of furniture are outlined
- IAC0504 The quality requirements of different components of the assembling processes are described and their identification discussed
- IAC0505 Faults and defects resulting from machine quality are identified and the possible causes are discussed
- IAC0506 Assembling process faults are discussed in terms of their effect on assembly and the end product

(Weight 20%)

2.3 Provider Programme Accreditation Criteria

Physical Requirements:

- The provider must have lesson plans and structured learning material or provide learners with access to structured learning material that addresses all the topics in all the knowledge modules.

Human Resource Requirements:

- Lecturer/learner ratio of 1:20.
- Qualifications of lecturers: 5 years relevant experience or NQF 2 58227 with 2 years of experience

Legal Requirements:

- OHS compliant

2.4 Exemptions

- No exemptions, but the module can be achieved in full through a normal RPL process

3. 682201003-00-01-KM-03, Computer technology and operations, NQF Level 2, Credits 4

3.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to provide the learner with an opportunity to acquire general knowledge and understanding of the functioning and purpose of information and computer technology and computer hardware units. The learning of this module will also enable the Learner to acquire an understanding of the principles of electronic communication and the operation and functioning of software packages, including the design of presentations and specialised computerised management information systems

The learning will enable learners to demonstrate an understanding of:

- KM-03-KT01 : Information, communication technology **5%**
- KM-03-KT02 : Computer hardware **10%**
- KM-03-KT03 : Electronic communication **10%**
- KM-03-KT04 : Software packages for office use **8%**
- KM-03-KT05 : Operating a software package **16%**
- KM-03-KT06 : Create text documents using an appropriate software package **16%**
- KM-03-KT07 : Create spreadsheets using an appropriate software package **16%**
- KM-03-KT08 : Presentations **12%**
- KM-03-KT09 : Specialised computerised management production systems **7%**

3.2 Guidelines for Topics

3.2.1. KM-03-KT01 : Information, communication technology **5%**

Topic elements to be covered include:

- KT0101 Computer technology
- KT0102 Communication technology
- KT0103 Access to information
- KT0104 Cell phones
- KT0105 Social media

Internal Assessment Criteria and Weight

- IAC0101 Information is accessed using internet browser and search engines
- IAC0102 The use of computer technology as a communication tool is demonstrated

(Weight 5%)

3.2.2. KM-03-KT02 : Computer hardware **10%**

Topic elements to be covered include:

- KT0201 Monitor
- KT0202 Keyboard

- KT0203 Mouse
- KT0204 Input and output devices
- KT0205 Memory stick and compact disks

Internal Assessment Criteria and Weight

- IAC0201 Computer hardware is identified and the purpose is stated

(Weight 10%)

3.2.3. KM-03-KT03 : Electronic communication 10%

Topic elements to be covered include:

- KT0301 Internet
- KT0302 Web sites
- KT0303 Internet service providers
- KT0304 Electronic mail
- KT0305 Internet forums and virtual meetings
- KT0306 Digital learning

Internal Assessment Criteria and Weight

- IAC0301 Electronic communication options are identified and the purposes are described and applied

(Weight 10%)

3.2.4. KM-03-KT04 : Software packages for office use 8%

Topic elements to be covered include:

- KT0401 Electronic text documents
- KT0402 Electronic spreadsheets
- KT0403 Internet access
- KT0404 Electronic written communication
- KT0405 Electronic meetings
- KT0406 Electronic seminars

Internal Assessment Criteria and Weight

- IAC0401 Software packages for office use are identified and the purposes are described and applied

(Weight 8%)

3.2.5. KM-03-KT05 : Operating a software package

16%

Topic elements to be covered include:

- KT0501 Create new folders
- KT0502 Move files
- KT0503 Copy files
- KT0504 Open files and folders
- KT0505 Create folders and files
- KT0506 Undo commands
- KT0507 Find files
- KT0508 Recycle bin

Internal Assessment Criteria and Weight

- IAC0501 Ways to systemise and optimise operations on a computer are identified and applied

(Weight 16%)

3.2.6. KM-03-KT06 : Create text documents using an appropriate software package

16%

Topic elements to be covered include:

- KT0601 Select text
- KT0602 Replace text
- KT0603 Insert text
- KT0604 Format text
- KT0605 Find and replace text
- KT0606 Align text
- KT0607 Use tabs
- KT0608 Move, cut and paste text
- KT0609 Format size and appearance of text
- KT0610 Create tables

Internal Assessment Criteria and Weight

- IAC0601 The use of software for creating texts (documents) are described and applied

(Weight 16%)

3.2.7. KM-03-KT07 : Create spreadsheets using an appropriate software package

16%

Topic elements to be covered include:

- KT0701 Create tables

- KT0702 Addition
- KT0703 Sum
- KT0704 Subtraction
- KT0705 Multiplication
- KT0706 Division
- KT0707 Change text colours
- KT0708 Add and delete columns and rows
- KT0709 Clear cells and worksheets
- KT0710 Move data
- KT0711 Copy data
- KT0712 Costing and pricing worksheets

Internal Assessment Criteria and Weight

- IAC0701 The use of software for creating spreadsheets are described and applied

(Weight 16%)

3.2.8. KM-03-KT08 : Presentations

12%

Topic elements to be covered include:

- KT0801 Layout and design
- KT0802 Shapes, smart art and charts
- KT0803 Text and text box
- KT0804 Illustrations and visuals
- KT0805 Smart texts
- KT0806 Transitions
- KT0807 Animation
- KT0808 Slide show

Internal Assessment Criteria and Weight

- IAC0801 The use of software for creating presentations are described and applied

(Weight 12%)

3.2.9. KM-03-KT09 : Specialised computerised management production systems

7%

Topic elements to be covered include:

- KT0901 Capturing production information into a production system

Internal Assessment Criteria and Weight

- IAC0901 Production information is captured onto the system and is accurate

(Weight 7%)

3.3 Provider Programme Accreditation Criteria

Physical Requirements:

- The provider must have lesson plans and structured learning material or provide learners with access to structured learning material that addresses all the topics in all the knowledge modules.

Human Resource Requirements:

- Lecturer/learner ratio of 1:20.
- Qualifications of lecturers: 5 years relevant experience or NQF 4 qualified

Legal Requirements:

- OHS compliant

3.4 Exemptions

- No exemptions, but the module can be achieved in full through a normal RPL process

SECTION 3B: PRACTICAL SKILL MODULE SPECIFICATIONS

List of Practical Skill Module Specifications

- 682201003-00-01-PM-01, Join and assemble cut components in furniture manufacturing, NQF Level 2, Credits 10

1. 682201003-00-01-PM-01, Join and assemble cut components in furniture manufacturing, NQF Level 2, Credits 10

1.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to prepare, set and operate a range of power tools, equipment, pneumatic tools and hand tools to in the furniture assembly department to produce assembled furniture components to specifications.

The learner will be required to:

- PM-01-PS01: Identify and categorize typical wooden furniture products and accessories
- PM-01-PS02: Identify timber and board used in the manufacturing of wooden furniture
- PM-01-PS03: Identify consumables and accessories used in furniture manufacturing
- PM-01-PS04: Identify tools, attachments and equipment used in furniture assembling
- PM-01-PS05: Select and prepare equipment and tools for furniture assembling operations
- PM-01-PS06: Apply safety measures related to tool or equipment operation and work area
- PM-01-PS07: Select and prepare required quantity and quality of material for furniture assembling operations
- PM-01-PS08: Operate different types of power tools, pneumatic tools and hand tools to perform operations such as drilling, sawing, routing, beveling, stapling and cutting to assemble furniture components
- PM-01-PS09: Produce a range of joints applicable to furniture assembling according to specification
- PM-01-PS10: Inspect the physical product, visually and by feel, checking against specification and applying tolerances to ensure quality and accuracy
- PM-01-PS11: Use pneumatic tools and compressed air in a safe manner
- PM-01-PS12: Perform routine cleaning, quality change cleaning and housekeeping during furniture assembling operations
- PM-01-PS13: Record and report assembly production information and prepare assembly documentation

1.2 Guidelines for Practical Skills

1.2.1. PM-01-PS01: Identify and categorize typical wooden furniture products and accessories

Scope of Practical Skill

Given a range of samples or photos of different wooden furniture products (styles, types, uses,) and accessories, the learner must be able to:

- PA0101 Identify and categorise the product according to types, uses and styles
- PA0102 Identify and categorise the products according to the raw materials used in the manufacturing process
- PA0103 Identify and categorise the accessories according to the uses and furniture design

Applied Knowledge

- AK0101 Furniture types, uses, styles and designs

Internal Assessment Criteria

- IAC0101 Furniture products are accurately identified according to the various categories

- IAC0102 Accessories identified is relevant to the specified use in the furniture manufacturing process

1.2.2. PM-01-PS02: Identify timber and board used in the manufacturing of wooden furniture

Scope of Practical Skill

Given a range of different types of timber and boards (which could be samples or access to a timber store) the learner must be able to:

- PA0201 Identify types of solid wood (soft and hard wood)
- PA0202 Identify types of composite boards (supa wood, chip board, melamine, veneer board, ply board, hard board)
- PA0203 Inspect wood and boards for defects and defaults visually
- PA0204 Use a metal detector to inspect reclaimed wood
- PA0205 Use a moisture meter to determine the moisture content of the wood
- PA0206 Identify standard sizes according to the product to be manufactured in order to reduce waste
- PA0207 Handle and store raw material such as lifting or pallet jacks in a safe manner in order to prevent injury to self and damage to the material
- PA0208 Identify and interpret the labeling and coding system used to identify and trace raw material and products

Applied Knowledge

- AK0201 Timber and board characteristics and quality
- AK0202 Stacking requirements and techniques

Internal Assessment Criteria

- IAC0201 Timber and board is correctly identified in terms of type and size and matched to the product specifications
- IAC0202 Raw materials are checked for quality and defects to ensure high quality end products
- IAC0203 Machinery and tools are correctly used to check, handle and store raw materials

1.2.3. PM-01-PS03: Identify consumables and accessories used in furniture manufacturing

Scope of Practical Skill

Given a range of consumables, chemicals and accessories used in the cabinet making process such as glue, dowels, biscuits, hinges & handles the learner must be able to:

- PA0301 Identify consumables according to uses
- PA0302 Identify accessories according to uses and furniture styles
- PA0303 Inspect consumables and accessories for faults and defects
- PA0304 Handle and store chemicals according to safety requirements and to prolong product lifetime
- PA0305 Identify standards sizes

- PA0306 Handle and store consumables safely and according to requirements

Applied Knowledge

- AK0301 Types of consumables, accessories their use and characteristics

Internal Assessment Criteria

- IAC0301 Different types of consumables and accessories are identified and selected according to the job card specifications
- IAC0302 Consumables are handled and stored according to health and safety specifications
- IAC0303 Accessories are selected according to their design and characteristics.
- IAC0304 Correct tools are used when fitting accessories (hinges, runners, handles).

1.2.4. PM-01-PS04: Identify tools, attachments and equipment used in furniture assembling

Scope of Practical Skill

Given a range of different types of tools such as jig saw, biscuit jointer, drills, nail guns, staple guns, routers the learner must be able to:

- PA0401 Identify different tools, attachments, equipment and their uses
- PA0402 Use tools according to manufacturer instructions
- PA0403 Maintain tools to ensure they are in good working conditions
- PA0404 Change bits and tooling for different tools and machine
- PA0405 Identify and use the correct PPE

Applied Knowledge

- AK0401 Types of tools and their uses
- AK0402 Safety when using tools, attachments and equipment

Internal Assessment Criteria

- IAC0401 Different types of tools are used according specifications and are well maintained to ensure safety, quality of product and length of service
- IAC0402 The different tools, attachments and equipment are correctly identified along with their functions
- IAC0403 The safety mechanisms on the various tools are correctly identified

1.2.5. PM-01-PS05: Select and prepare equipment and tools for furniture assembling operations

Scope of Practical Skill

Given access to a range of equipment and tools used for furniture assembling the learner must be able to:

- PA0501 Obtain the specification sheet/ routing sheet and select tools accordingly
- PA0502 Record all relevant information onto appropriate document.
- PA0503 Set the equipment and tools as per specification sheet
- PA0504 Handle and use equipment and tools safely to produce components to specification

Applied Knowledge

- AK0501 Uses of different tools
- AK0502 Understanding of the specification sheet and routing sheet.

Internal Assessment Criteria

- IAC0501 The different tools operating in the machine shop are correctly identified and selected according to the specification or routing sheet
- IAC0502 The safety mechanisms on the various tools are correctly identified in order to ensure they are functioning properly

1.2.6. PM-01-PS06: Apply safety measures related to tool or equipment operation and work area

Scope of Practical Skill

Given access to a range of equipment and tools and a work area the learner must be able to:

- PA0601 Set up the work area, tools and equipment to ensure that the work area will be safe and efficient
- PA0602 Use the correct PPC and PPE for the given situation and machine
- PA0603 Identify hazards and risks related to the operation and machine

Applied Knowledge

- AK0601 Understanding of safety notices, colour coding and demarcation lines
- AK0602 Personal protective equipment

Internal Assessment Criteria

- IAC0601 Different notices in the work area are identified and adhered to
- IAC0602 Work is performed within the demarcated area
- IAC0603 Work is performed without creating hazards for self and that of others and safety rules and practices are adhered to at all times

1.2.7. PM-01-PS07: Select and prepare required quantity and quality of material for furniture assembling operations

Scope of Practical Skill

Given access to different materials the learner must be able to:

- PA0701 Select material according to cutting list, routine sheet and other relevant source of material
- PA0702 Mark the face side of material according to required use and desired visual effect
- PA0703 Prepare material to finish requirements

Applied Knowledge

- AK0701 Material types, strength and their uses

Internal Assessment Criteria

- IAC0701 Different materials are used to produce joints taking into account the strength of the material meets product specifications

- IAC0702 Grains and other characteristics of materials are observed and correctly integrated into the product specifications

1.2.8. PM-01-PS08: Operate different types of power tools, pneumatic tools and hand tools to perform operations such as drilling, sawing, routing, beveling, stapling and cutting to assemble furniture components

Scope of Practical Skill

Given a range of different types of tools used in the furniture assembling department and furniture components the learner must be able to:

- PA0801 Set up the tool/ machine correctly
- PA0802 Adjust the cutting tools to meet specifications
- PA0803 Observe the direction of the grains of the wood while drilling or producing a joint to ensure the pattern of the grain is correct
- PA0804 Observe the defects of timber such as knots and remove nails or foreign objects in the case of reclaimed timber
- PA0805 Replenish raw material as needed to ensure optimum production efficiency
- PA0806 Perform quality or style changes such as changing from solid wood to board or from soft wood to hard wood paying attention to settings such as speed and cleaning to prevent scratching
- PA0807 Dispose/store off-cuts safely
- PA0808 Store and label components and assembled furniture according to specifications and size
- PA0809 Check samples at set intervals (spot checks) for correctness and consistency of cut components
- PA0810 Remove cutting tools and drill bits before cleaning the tools
- PA0811 Store tools correctly and safely.

Applied Knowledge

- AK0801 Understanding of material and defects
- AK0802 Material handling

Internal Assessment Criteria

- IAC0801 Materials and material defects are identified according to their uses, applications and the tolerance standards to which they are subject in order to identify quality raw materials and reject non-conforming materials
- IAC0802 Cutting lists and routing sheets are interpreted in order to ensure components are correct
- IAC0803 Organisational reporting procedures are followed
- IAC0804 Materials are accurately sorted, handled and stacked safely and securely
- IAC0805 Personal protective equipment are selected and used correctly according to Health and Safety regulations and requirements

1.2.9. PM-01-PS09: Produce a range of joints applicable to furniture assembling according to specification

Scope of Practical Skill

Given a drawing with different hand joints, tools and equipment and machined components the learner must be able to:

- PA0901 Produce the different joints such as dove tails, housing joints, mortise and tenon, half lap joint, etc. according to specification
- PA0902 Ensure that shoulder to shoulder size is accurate and according to the drawing.
- PA0903 Ensure that the correct tools are used to produce joints
- PA0904 Produce joints and a profile which are free from burn marks and are not chipped.
- PA0905 Check that timber is safely secured while working
- PA0906 Carry out the process safely, accurately and efficiently

Applied Knowledge

- AK0901 Different joints, dove tails, housing joints, mortise and tenon, half lap joint, etc.

Internal Assessment Criteria

- IAC0901 The different kinds of joints are identified and produced to fit well together
- IAC0902 The correct type of joint is selected for particular products based on the strength of the joint and the materials used

1.2.10. PM-01-PS10: Inspect the physical product, visually and by feel, checking against specification and applying tolerances to ensure quality and accuracy

Scope of Practical Skill

Given a range of machined timber and boards with faults and defects and different types of paint the learner must be able to:

- PA1001 Inspect the machined product visually and by feel to ensure compliance with product specifications
- PA1002 Check the machined product against specification while applying tolerances
- PA1003 Identify component faults such as squareness of the component, incorrect size, knots causing rejects, smoothness and scratches
- PA1004 Identify process faults such as blade marks, timber moisture content, burn marks, paint contaminated with water, over spraying, running, mixing of wrong paints, wrong viscosity, wrong reaction or inconsistencies in the cut product
- PA1005 Identify machine faults such as blunt blade, wrong sanding grit, wrong nozzle, pressure that is too high or low, balance of air extraction

Applied Knowledge

- AK1001 Different types of faults
- AK1002 Paints and their characteristics

Internal Assessment Criteria

- IAC1001 Component and product faults are correctly identified and corrective action is taken
- IAC1002 Process faults are correctly identified and corrective action is taken
- IAC1003 Machine faults are correctly identified and corrective action is taken
- IAC1004 Materials are handled and stacked safely and securely

1.2.11. PM-01-PS11: Use pneumatic tools and compressed air in a safe manner

Scope of Practical Skill

Given pneumatic tools connected with air line or compressor and consumables the learner must be able to:

- PA1101 Follow safety routines and procedures
- PA1102 Adjust pressure to the required gauge
- PA1103 Identify correct connections (fittings for pipes)
- PA1104 Ensure all settings are correct according to product specifications
- PA1105 Start and stop the tool using standard operating procedures
- PA1106 Use the tool to produce the desired components or effects
- PA1107 Conduct clean-up procedures as required

Applied Knowledge

- AK1101 Different of pressure bar requirement, adjusting pressure gauge.

Internal Assessment Criteria

- IAC1101 The pressure gauge is adjusted to the required pressure
- IAC1102 Water and oil is drained from the system
- IAC1103 Compressed air is used according to standard safety and operating procedures
- IAC1104 Hazards associated with compressed air are identified and rectified

1.2.12. PM-01-PS12: Perform routine cleaning, quality change cleaning and housekeeping during furniture assembling operations

Scope of Practical Skill

Given access to the work area and workbenches the learner must be able to:

- PA1201 Conduct a general cleaning of the work area to ensure safety and efficiency
- PA1202 Clean the tools or equipment to remove dust, dirt and other contaminants
- PA1203 Sharpen or replace blunted edges and perform minor maintenance
- PA1204 Perform dust extraction procedures where necessary
- PA1205 Check that the tools and equipment is in working condition once the procedures are completed

Applied Knowledge

- AK1201 Reduction of waste, disposal of waste, different types of waste

Internal Assessment Criteria

- IAC1201 Different waste in the workshop is managed and disposed safely and according to company policies and regulation.
- IAC1202 Tools and equipment are clean and in good and safe working condition at all times
- IAC1203 Sawdust is removed regularly to avoid accumulation and the creation of fire hazards

- IAC1204 Waste is minimized during the operations and offcuts that can be reused are marked and stacked neatly.

1.2.13. PM-01-PS13: Record and report assembly production information and prepare assembly documentation

Scope of Practical Skill

Given access to production log book, product specification and writing material, the learner must be able to:

- PA1301 Identify the type of information to be recorded in the production document.
- PA1302 Record legibly the hourly production, down time, quality faults, and production history and mother roll specs.
- PA1303 Record any production related problems experienced during the shift.
- PA1304 Hand over to incoming shift following the correct procedure

Applied Knowledge

- AK1301 Record keeping

Internal Assessment Criteria

- IAC1301 The relevant information during the production shift is recorded and reported via the correct reporting channels
- IAC1302 Production problems experienced during shift are recorded correctly, neatly and legibly

1.3 Provider Programme Accreditation Criteria

Physical Requirements:

- The provider must have a work site with all the machines, machine parts, attachments, equipment, control systems, lockout systems, tools, consumables, raw material, utensils, safety equipment, protective clothing, work instructions, internal practical assessment tools and practical training manual specified in the practical skill scope statement

Human Resource Requirements:

- Qualified and accredited facilitator or supervisor with a minimum of 3 years of experience in a furniture manufacturing environment and be NQF 3 qualified in furniture manufacturing processes.
- Supervisor/subordinate ratios = 1:20
- Availability of coaches and mentors = 1:5

Legal Requirements:

- Compliance with all occupational health and safety legislation
- Compliance with Skills Development Act and Regulations
- Compliance with Labour Legislation

1.4 Exemptions

- No exemptions, but the module can be achieved in full through a normal RPL process

SECTION 3C: WORK EXPERIENCE MODULE SPECIFICATIONS

List of Work Experience Module Specifications

- 682201003-00-01-WM-01, Furniture assembling operations, NQF Level 2, Credits 14

1. 682201003-00-01-WM-01, Furniture assembling operations, NQF Level 2, Credits 14

1.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:

Demonstrate the ability to identify tools and equipment and produce joints, perform lamination and assemble finished furniture product.

The learner will be required to:

- WM-01-WE01: Read and interpret work instructions and product specifications for furniture assembling operations
- WM-01-WE02: Prepare a workstation for furniture assembly operations
- WM-01-WE03: Obtain and prepare tools required to produce joints (tools including jig saws, hand routers, drills, doweling jigs, hand saws, sliding bevels, marking gauge and mortise gauge)
- WM-01-WE04: Produce minimum of 50 of each of the following joints include dove tail, mortise and tenon, half lap, housing joints, double mortise, dowel joints, biscuit joints, tongue and groove as per cutting list and drawings
- WM-01-WE05: Fit and dry assemble at least 50 of each of the following joints: dove tail, mortise and tenon, half lap, housing joints, double mortise, dowel joints, biscuit joints, tongue and groove and inspect for a snug fit
- WM-01-WE06: Produce 50 different profiles, chamfers, radiuses, rebates, dowelling necessary for the job
- WM-01-WE07: Conduct a dry assembly by fitting all components according to specification of a minimum of 100 furniture products
- WM-01-WE08: Perform final assembling of minimum 100 furniture products using clamps, glue, screws and nails
- WM-01-WE09: Perform sanding and smooth the surface and sharp edges of a minimum of 100 furniture products
- WM-01-WE10: Apply safety measures and equipment
- WM-01-WE11: Conduct general housekeeping activities to ensure the work area is clean and neat and complying with safety regulations
- WM-01-WE12: Ensure quality of the assembled product by identifying machine faults
- WM-01-WE13: Ensure quality of the assembled product by identifying raw material faults
- WM-01-WE14: Ensure quality of the assembled product by identifying process faults
- WM-01-WE15: Conduct continuous quality inspection of the assembled product throughout the assembling operation
- WM-01-WE16: Perform maintenance activities to ensure a well maintain machine and workshop

1.2 Guidelines for Work Experiences

1.2.1. WM-01-WE01: Read and interpret work instructions and product specifications for furniture assembling operations

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Interpret the job card, cutting list, production flow/routing chart and identify all job requirements and specifications including machines and operations

- WA0102 Identify furniture types, styles and designs from the job card
- WA0103 Read and interpret basic engineering drawings and identify all aspects relevant to the work specifications

Supporting Evidence

- SE0101 Signed job card

1.2.2. WM-01-WE02: Prepare a workstation for furniture assembly operations

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Obtain all required timber and conduct quality checks to ensure the timber quality conforms to specifications
- WA0202 Obtain all required consumables and accessories specified in the job card and conduct a quality check
- WA0203 Prepare workbenches and equipment to be used
- WA0204 Select and apply personal protective clothing and equipment (PPE and PPC) for the specific machine (such as gloves, dust masks, respirators, etc.)

Supporting Evidence

- SE0201 Time sheet/ job card

1.2.3. WM-01-WE03: Obtain and prepare tools required to produce joints (tools including jig saws, hand routers, drills, doweling jigs, hand saws, sliding bevels, marking gauge and mortise gauge)

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0301 Compile and send tool list request to the store room or relevant person
- WA0302 Identify tools from the store room and sign them out as per the company policies
- WA0303 Confirm that the tools obtained are relevant to the job and joints to be produced
- WA0304 Set up the tool/ machine correctly
- WA0305 Adjust the cutting tools to meet specifications
- WA0306 Receive and inspect the tools to ensure it meet the specifications and are in good working order and select and fit attachments accurately
- WA0307 Identify machine faults such as blunt blade, wrong sanding grit, wrong nozzle, pressure that is too high or low, balance of air extraction Safely handle, care for and store tools correctly without damaging them

Supporting Evidence

- SE0301 Tool request completed and sign by the store room attendant

1.2.4. WM-01-WE04: Produce minimum of 50 of each of the following joints include dove tail, mortise and tenon, half lap, housing joints, double mortise, dowel joints, biscuit joints, tongue and groove as per cutting list and drawings

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0401 Mark-out joints as per drawings
- WA0402 Use correct tools and/or correct machine to cut joints
- WA0403 Use vises to secure workpiece to avoid injuries to self and damage to furniture component
- WA0404 Handle cutting tools correctly and safely
- WA0405 Replace bits and cutters where necessary
- WA0406 Produce quality joints in compliance with specifications and tolerances in the time allocated

Supporting Evidence

- SE0401 Time sheet/ job card and photos

1.2.5. WM-01-WE05: Fit and dry assemble at least 50 of each of the following joints: dove tail, mortise and tenon, half lap, housing joints, double mortise, dowel joints, biscuit joints, tongue and groove and inspect for a snug fit

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0501 Fit the male and female components of the joint and check if a snug fit is obtained
- WA0502 Make a final cleanout of the joints that are too tight
- WA0503 Observe the shoulder to shoulder size according to the product specifications
- WA0504 Check if joints correspond with the specification on the drawing

Supporting Evidence

- SE0501 Time sheet/ job card and photos

1.2.6. WM-01-WE06: Produce 50 different profiles, chamfers, radiuses, rebates, dowelling necessary for the job

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0601 Prepare a hand router by selecting and attaching the required bits
- WA0602 Confirm the radiuses and profile with the relevant person
- WA0603 Produce profile, chamfer, radiuses, rebates according to specification
- WA0604 Use dowelling jig to produce dowel holes
- WA0605 Check if all profiles and work produced meet requirements
- WA0606 Identify machine faults such as blunt blade, wrong sanding grit, wrong nozzle, pressure that is too high or low, balance of air extraction

Supporting Evidence

- SE0601 Time sheet/ job card and photos

1.2.7. WM-01-WE07: Conduct a dry assembly by fitting all components according to specification of a minimum of 100 furniture products

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0701 Perform dry assemble to check if the product components fit
- WA0702 Check if the product meets specifications as specified in the drawing
- WA0703 Check product for squareness and stability
- WA0704 Report any deviations to the relevant person

Supporting Evidence

- SE0701 Time sheet/ job card and photos

1.2.8. WM-01-WE08: Perform final assembling of minimum 100 furniture products using clamps, glue, screws and nails

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0801 Perform final assembly of the product using glue, nails screws and clamps
- WA0802 Use tape measure to check if the product is square
- WA0803 Remove excess glue from the joints
- WA0804 Countersink all screws
- WA0805 Punch all nails to ensure they are not protruding to the surface

Supporting Evidence

- SE0801 Time sheet/ job card and photos

1.2.9. WM-01-WE09: Perform sanding and smooth the surface and sharp edges of a minimum of 100 furniture products

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0901 Select and use the correct sand paper
- WA0902 Sand all surfaces and ensure that it is ready to accept finishing material
- WA0903 Remove all sharp edges by sanding them off
- WA0904 Apply stopping on the surface to rectify faults where necessary

Supporting Evidence

- SE0901 Time sheet/ job card and photos

1.2.10. WM-01-WE10: Apply safety measures and equipment

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA1001 Maintain safe working environment to comply with safety standards
- WA1002 Apply ear and eye protection, dust masks, overall and no loose clothes
- WA1003 Attend regular safety meetings according to the requirements of the workplace
- WA1004 Report inadequate lighting in the assembly shop
- WA1005 Participate in a simulated fire emergency evacuation procedure

Supporting Evidence

- SE1001 Time sheet/ job card and photos

1.2.11. WM-01-WE11: Conduct general housekeeping activities to ensure the work area is clean and neat and complying with safety regulations

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA1101 Record and report assembly production information and prepare assembly documentation
- WA1102 Clean dust extraction bags where applicable
- WA1103 Check the dust extraction system for working condition
- WA1104 Comply with attendance and time keeping standards as determined by the company
- WA1105 Take necessary actions and measures and to reduce wastage
- WA1106 Produce minimum waste levels as determined by the company within set tolerances
- WA1107 Apply all safety routines and procedures when working with compressed air

Supporting Evidence

- SE1101 Time sheet/ job card and photos

1.2.12. WM-01-WE12: Ensure quality of the assembled product by identifying machine faults

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA1201 Identify and immediately report any power tool defects
- WA1202 Ensure the power tool is operated within design specifications
- WA1203 Identify any wrongly fitted attachment and replace
- WA1204 Identify and correct incorrect power tool settings
- WA1205 Conduct calibration routines within the authority of the operator and report any deviations to the supervisor

Supporting Evidence

- SE1201 Time sheet/ job card and photos

1.2.13. WM-01-WE13: Ensure quality of the assembled product by identifying raw material faults

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA1301 Inspect, identify and report all component defects such as cracks, knots, twists, insects, wet rot and dry rot
- WA1302 Identify component faults such as squareness of the component, incorrect size, knots causing rejects, smoothness and scratches
- WA1303 Select components correctly according to type as specified on the job card
- WA1304 Handle furniture product components with utmost care to prevent damaging or chipping the edges
- WA1305 Avoid any misinterpretation of job cards by clarifying information which could be vague or unclear

Supporting Evidence

- SE1301 Time sheet/ job card and photos

1.2.14. WM-01-WE14: Ensure quality of the assembled product by identifying process faults

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA1401 Observe the direction of the grains of the wood while drilling or producing a joint to ensure the pattern of the grain is correct
- WA1402 Perform quality or style changes such as changing form solid wood to board or from soft wood to hard wood paying attention to settings such as speed and cleaning to prevent scratching
- WA1403 Identify process faults such as blade marks, timber moisture content, burn marks, paint contaminated with water, over spraying, running, mixing of wrong paints, wrong viscosity, wrong reaction or inconsistencies in the cut product
- WA1404 Store and label components and assembled furniture according to specifications and size
- WA1405 Ensure the wood is correctly clamped in the vice to avoid damage to machine, unsafe working condition, or not producing the designed product

Supporting Evidence

- SE1401 Time sheet/ job card and photos

1.2.15. WM-01-WE15: Conduct continuous quality inspection of the assembled product throughout the assembling operation

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA1501 Check samples at set intervals (spot checks) for correctness and consistency of cut components
- WA1502 Conduct a quality inspection checking for consistency, accuracy, defects of the product
- WA1503 Conduct a final quality inspection of the machined product before hand over to next process

- WA1504 Record all defects

Supporting Evidence

- SE1501 Quality checklist

1.2.16. WM-01-WE16: Perform maintenance activities to ensure a well maintain machine and workshop

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA1601 Lubricate, clean and service the machine at required intervals as part of routine maintenance activities
- WA1602 Identify and immediately report any machine or machine part or attachment defects

Supporting Evidence

- SE1601 Completed machine maintenance checklist

1.3 Contextualised Workplace Knowledge

1 Company products

2 Various departments and workflow

3 Reporting structures

4 Company standard operating and safety procedures and quality standards

5 Workshop layout and other designated areas

6 Personal protective clothing and equipment

1.4 Criteria for Workplace Approval

Physical Requirements:

- Fully equipment wood machining department with advanced wood and board machining machines, tools and equipment and various types of raw material
- Compressed airline and extraction
- Key processes: wood machining processes using advanced machines

Human Resource Requirements:

- Qualifications, registration or experience of supervisor: NQF 2 qualified in furniture technology with 3 years of experience in the furniture making industry
- Supervisor/subordinate ratios = 1:20
- Availability of coaches and mentors = 1:5

Legal Requirements:

- Compliance with occupational health and safety regulations
- Compliance with Labour Legislation
- Bargaining Council Main Agreement

1.5 Additional Assignments to be Assessed Externally

None

SECTION 4: STATEMENT OF WORK EXPERIENCE

Curriculum Number:	682201003
Curriculum Title:	Furniture Assembler

Learner Details	
Name:	
ID Number:	

Employer Details	
Company Name:	
Address:	
Supervisor Name:	
Work Telephone:	
E-Mail:	

682201003-00-01-WM-01, Furniture assembling operations, NQF Level 2, Credits 14

WM-01-WE01	Read and interpret work instructions and product specifications for furniture assembling operations		
	Scope Work Experience	Date	Signature
WA0101	Interpret the job card, cutting list, production flow/routing chart and identify all job requirements and specifications including machines and operations		
WA0102	Identify furniture types, styles and designs from the job card		
WA0103	Read and interpret basic engineering drawings and identify all aspects relevant to the work specifications		
	Supporting Evidence	Date	Signature
SE0101	Signed job card		
WM-01-WE02	Prepare a workstation for furniture assembly operations		
	Scope Work Experience	Date	Signature
WA0201	Obtain all required timber and conduct quality checks to ensure the timber quality conforms to specifications		
WA0202	Obtain all required consumables and accessories specified in the job card and conduct a quality check		
WA0203	Prepare workbenches and equipment to be used		
WA0204	Select and apply personal protective clothing and equipment (PPE and PPC) for the specific machine (such as gloves, dust masks, respirators, etc.)		
	Supporting Evidence	Date	Signature
SE0201	Time sheet/ job card		
WM-01-WE03	Obtain and prepare tools required to produce joints (tools including jig saws, hand routers, drills, doweling jigs, hand saws, sliding bevels, marking gauge and mortise gauge)		
	Scope Work Experience	Date	Signature
WA0301	Compile and send tool list request to the store room or relevant person		

WA0302	Identify tools from the store room and sign them out as per the company policies		
WA0303	Confirm that the tools obtained are relevant to the job and joints to be produced		
WA0304	Set up the tool/ machine correctly		
WA0305	Adjust the cutting tools to meet specifications		
WA0306	Receive and inspect the tools to ensure it meet the specifications and are in good working order and select and fit attachments accurately		
WA0307	Identify machine faults such as blunt blade, wrong sanding grit, wrong nozzle, pressure that is too high or low, balance of air extraction Safely handle, care for and store tools correctly without damaging them		
	Supporting Evidence	Date	Signature
SE0301	Tool request completed and sign by the store room attendant		
WM-01-WE04	Produce minimum of 50 of each of the following joints include dove tail, mortise and tenon, half lap, housing joints, double mortise, dowel joints, biscuit joints, tongue and groove as per cutting list and drawings		
	Scope Work Experience	Date	Signature
WA0401	Mark-out joints as per drawings		
WA0402	Use correct tools and/or correct machine to cut joints		
WA0403	Use vises to secure workpiece to avoid injuries to self and damage to furniture component		
WA0404	Handle cutting tools correctly and safely		
WA0405	Replace bits and cutters where necessary		
WA0406	Produce quality joints in compliance with specifications and tolerances in the time allocated		
	Supporting Evidence	Date	Signature
SE0401	Time sheet/ job card and photos		
WM-01-WE05	Fit and dry assemble at least 50 of each of the following joints: dove tail, mortise and tenon, half lap,		

	housing joints, double mortise, dowel joints, biscuit joints, tongue and groove and inspect for a snug fit		
	Scope Work Experience	Date	Signature
WA0501	Fit the male and female components of the joint and check if a snug fit is obtained		
WA0502	Make a final cleanout of the joints that are too tight		
WA0503	Observe the shoulder to shoulder size according to the product specifications		
WA0504	Check if joints correspond with the specification on the drawing		
	Supporting Evidence	Date	Signature
SE0501	Time sheet/ job card and photos		
WM-01-WE06	Produce 50 different profiles, chamfers, radiuses, rebates, dowelling necessary for the job		
	Scope Work Experience	Date	Signature
WA0601	Prepare a hand router by selecting and attaching the required bits		
WA0602	Confirm the radiuses and profile with the relevant person		
WA0603	Produce profile, chamfer, radiuses, rebates according to specification		
WA0604	Use dowelling jig to produce dowel holes		
WA0605	Check if all profiles and work produced meet requirements		
WA0606	Identify machine faults such as blunt blade, wrong sanding grit, wrong nozzle, pressure that is too high or low, balance of air extraction		
	Supporting Evidence	Date	Signature
SE0601	Time sheet/ job card and photos		
WM-01-WE07	Conduct a dry assembly by fitting all components according to specification of a minimum of 100 furniture products		

	Scope Work Experience	Date	Signature
WA0701	Perform dry assemble to check if the product components fit		
WA0702	Check if the product meets specifications as specified in the drawing		
WA0703	Check product for squareness and stability		
WA0704	Report any deviations to the relevant person		
	Supporting Evidence	Date	Signature
SE0701	Time sheet/ job card and photos		
WM-01-WE08	Perform final assembling of minimum 100 furniture products using clamps, glue, screws and nails		
	Scope Work Experience	Date	Signature
WA0801	Perform final assembly of the product using glue, nails screws and clamps		
WA0802	Use tape measure to check if the product is square		
WA0803	Remove excess glue from the joints		
WA0804	Countersink all screws		
WA0805	Punch all nails to ensure they are not protruding to the surface		
	Supporting Evidence	Date	Signature
SE0801	Time sheet/ job card and photos		
WM-01-WE09	Perform sanding and smooth the surface and sharp edges of a minimum of 100 furniture products		
	Scope Work Experience	Date	Signature
WA0901	Select and use the correct sand paper		
WA0902	Sand all surfaces and ensure that it is ready to accept finishing material		
WA0903	Remove all sharp edges by sanding them off		

WA0904	Apply stopping on the surface to rectify faults where necessary		
	Supporting Evidence	Date	Signature
SE0901	Time sheet/ job card and photos		
WM-01-WE10	Apply safety measures and equipment		
	Scope Work Experience	Date	Signature
WA1001	Maintain safe working environment to comply with safety standards		
WA1002	Apply ear and eye protection, dust masks, overall and no loose clothes		
WA1003	Attend regular safety meetings according to the requirements of the workplace		
WA1004	Report inadequate lighting in the assembly shop		
WA1005	Participate in a simulated fire emergency evacuation procedure		
	Supporting Evidence	Date	Signature
SE1001	Time sheet/ job card and photos		
WM-01-WE11	Conduct general housekeeping activities to ensure the work area is clean and neat and complying with safety regulations		
	Scope Work Experience	Date	Signature
WA1101	Record and report assembly production information and prepare assembly documentation		
WA1102	Clean dust extraction bags where applicable		
WA1103	Check the dust extraction system for working condition		
WA1104	Comply with attendance and time keeping standards as determined by the company		
WA1105	Take necessary actions and measures and to reduce wastage		
WA1106	Produce minimum waste levels as determined by the company within set tolerances		

WA1107	Apply all safety routines and procedures when working with compressed air		
	Supporting Evidence	Date	Signature
SE1101	Time sheet/ job card and photos		
WM-01-WE12	Ensure quality of the assembled product by identifying machine faults		
	Scope Work Experience	Date	Signature
WA1201	Identify and immediately report any power tool defects		
WA1202	Ensure the power tool is operated within design specifications		
WA1203	Identify any wrongly fitted attachment and replace		
WA1204	Identify and correct incorrect power tool settings		
WA1205	Conduct calibration routines within the authority of the operator and report any deviations to the supervisor		
	Supporting Evidence	Date	Signature
SE1201	Time sheet/ job card and photos		
WM-01-WE13	Ensure quality of the assembled product by identifying raw material faults		
	Scope Work Experience	Date	Signature
WA1301	Inspect, identify and report all component defects such as cracks, knots, twists, insects, wet rot and dry rot		
WA1302	Identify component faults such as squareness of the component, incorrect size, knots causing rejects, smoothness and scratches		
WA1303	Select components correctly according to type as specified on the job card		
WA1304	Handle furniture product components with utmost care to prevent damaging or chipping the edges		
WA1305	Avoid any misinterpretation of job cards by clarifying information which could be vague or unclear		
	Supporting Evidence	Date	Signature

SE1301	Time sheet/ job card and photos		
WM-01-WE14	Ensure quality of the assembled product by identifying process faults		
	Scope Work Experience	Date	Signature
WA1401	Observe the direction of the grains of the wood while drilling or producing a joint to ensure the pattern of the grain is correct		
WA1402	Perform quality or style changes such as changing form solid wood to board or from soft wood to hard wood paying attention to settings such as speed and cleaning to prevent scratching		
WA1403	Identify process faults such as blade marks, timber moisture content, burn marks, paint contaminated with water, over spraying, running, mixing of wrong paints, wrong viscosity, wrong reaction or inconsistencies in the cut product		
WA1404	Store and label components and assembled furniture according to specifications and size		
WA1405	Ensure the wood is correctly clamped in the vice to avoid damage to machine, unsafe working condition, or not producing the designed product		
	Supporting Evidence	Date	Signature
SE1401	Time sheet/ job card and photos		
WM-01-WE15	Conduct continuous quality inspection of the assembled product throughout the assembling operation		
	Scope Work Experience	Date	Signature
WA1501	Check samples at set intervals (spot checks) for correctness and consistency of cut components		
WA1502	Conduct a quality inspection checking for consistency, accuracy, defects of the product		
WA1503	Conduct a final quality inspection of the machined product before hand over to next process		
WA1504	Record all defects		
	Supporting Evidence	Date	Signature

SE1501	Quality checklist		
WM-01-WE16	Perform maintenance activities to ensure a well maintain machine and workshop		
	Scope Work Experience	Date	Signature
WA1601	Lubricate, clean and service the machine at required intervals as part of routine maintenance activities		
WA1602	Identify and immediately report any machine or machine part or attachment defects		
	Supporting Evidence	Date	Signature
SE1601	Completed machine maintenance checklist		

	Contextualised Workplace Knowledge	Date	Signature
1	Company products		
2	Various departments and workflow		
3	Reporting structures		
4	Company standard operating and safety procedures and quality standards		
5	Workshop layout and other designated areas		
6	Personal protective clothing and equipment		

	Additional Assignments to be Assessed Externally	Date	Signature
	None		