

N5 Practical Woodworking Course Assessment Information

The overall marks (130 marks) for the course are shown below:

Component	Marks	Scaled mark	Duration
Component 1: question paper	60	30	1 hour
Component 2: practical activity	70	70	See course assessment section

Question Paper

60 marks
30%

This gives you the opportunity to demonstrate skills, knowledge and understanding relating to:

Area	Range of marks
Measuring and marking out tools	4-6
Reading and interpreting drawings	4-6
Materials	4-6
Bench work	5-7
Flat-frame construction and assembly	6-8
Carcase construction and assembly	6-8
Use and care of machines and power tools	8-10
Surface preparation and finish	5-8
Health and safety	6-8
Sustainability and recycling	3-5

Practical Activity

70 marks- 70%

The practical activity allows candidates to demonstrate the application of skills and knowledge developed during the course to produce a finished product, to a given standard and specification.

The practical activity will be to manufacture a product and complete a log book. The log book will be provided as part of the assessment task.

Marks are awarded for:

Area
Log book
Flat-frame construction
Carcase construction
Machining/turnery
Finishing
Overall assembly

The practical activity gives candidates an opportunity to demonstrate the following skills, knowledge and understanding:

- ♦ selecting and using a range of woodworking tools, equipment, materials and finishes
- ♦ reading, interpreting and following given working drawings, outline specification information and cutting lists
- ♦ marking out, cutting and shaping component parts
- ♦ manufacturing a finished product to given drawings and standards
- ♦ working and using tools and equipment in accordance with recognised procedures and safe working practices

The standards and tolerances applicable to the product are as follows:

Operation	Tolerance
Individual components	
Planing (or similar)	±1mm
Marking out and cutting	±1mm
Machine/power tool tasks: <ul style="list-style-type: none"> ♦ vertical drilling ♦ sanding to a line ♦ drilling to given line position 	±1mm
Joint gaps	Not to exceed 1mm
Overall sizes	±3mm

Developing the Young Workforce (DYW) Skills covered in the N5 Practical Woodworking course:

Skill	How to develop
2 Numeracy	
2.2 Money, time and measurement	<ul style="list-style-type: none"> ◆ measuring and marking out materials in accordance with working drawings ◆ interpreting and calculating dimensions and scale in drawings/diagrams/orthographic projections and applying them to work pieces ◆ checking the accuracy of completed components and assemblies against drawings and cutting lists ◆ manufacturing items to strict measurements of tolerances and accuracy ◆ managing time to achieve set tasks and goals ◆ discussing costs in the context of sustainability and recycling
4 Employability, enterprise and citizenship	
4.3 Working with others	<ul style="list-style-type: none"> ◆ sharing tools, equipment and materials with others during workshop practice and working together to balance individual tasks and time ◆ participating in group work ◆ assisting other candidates to carry out tasks
5 Thinking skills	
5.3 Applying	<ul style="list-style-type: none"> ◆ learning new techniques and processes and applying them in practical tasks ◆ planning and organising tools, equipment and materials in preparation for a practical activity ◆ applying practical skills to solve a problem in a drawing or specification
5.5 Creating	<ul style="list-style-type: none"> ◆ creating assemblies based on drawings and diagrams and applying individual interpretation where necessary



Skills, knowledge and understanding

Practical Woodworking

Practical activity		Question paper	
Skills	Candidates are required to demonstrate the ability to:	Knowledge and Understanding	Candidates are required to demonstrate a knowledge and understanding of:
Measuring and marking out	Use the measuring and marking out tools listed below: <ul style="list-style-type: none"> steel rule tape measure try-square marking gauge templates marking knife mortise gauge cutting gauge sliding bevel dovetail template outside calipers <p>With evidence of ratio dimensioning (ie 1/3 thickness, 1/2 thickness).</p>	Measuring and marking out	The use of the tools and equipment listed below: <ul style="list-style-type: none"> steel rule tape measure try-square marking gauge templates marking knife mortise gauge cutting gauge sliding bevel dovetail template outside calipers units of measurement ratio dimensioning (ie 1/3 thickness, 1/2 thickness)
Reading and interpreting drawings and documents	Read and extract relevant information from: <ul style="list-style-type: none"> working drawings, pictorial drawings, diagrams, cutting lists 	Reading and interpreting drawings and documents	<ul style="list-style-type: none"> working drawings, pictorial drawings, diagrams, cutting lists orthographic projection scale basic drawing conventions: line types outlines, centre lines, hidden detail and dimension lines reading and extracting information from working drawings: linear, radial, angular (45°) and diametric dimensions
Materials	Work safely with natural and manmade materials.	Materials	Properties of woodworking materials listed below: <ul style="list-style-type: none"> softwoods: white and red pine, cedar and larch hardwoods: ash, oak, beech, mahogany and meranti (Philippine mahogany) manufactured boards and veneered manufactured boards: chipboard, plywood, hardboard, MDF and blockboard dowel rod
Bench work	Safely use tools listed below: <ul style="list-style-type: none"> bench vice saws chisels mallet hammers pincers 	Bench work	The safe use of the bench tools and their component parts listed below: <ul style="list-style-type: none"> bench vice saws: tenon/back, coping, rip, cross-cut and panel chisels: bevel edged, mortise and firmer parts of chisels: tang, ferrule, leather washer and handle mallet

Practical activity		Question paper	
Skills	Candidates are required to demonstrate the ability to:	Knowledge and Understanding	Candidates are required to demonstrate a knowledge and understanding of:
	<ul style="list-style-type: none"> planes spoke shave hand drills and braces screwdrivers sawing board/bench hook hand router bradawl nail punch 		<ul style="list-style-type: none"> hammers: cross-pein and claw pincers planes: jack, smoothing, plough, bull-nose, block, rebate and combination main parts of plane: cap iron, cutting iron, adjusting lever and adjusting nut, depth stops and fences spoke shave hand drills and braces screwdrivers: straight and cross-head sawing board/bench hook hand router bradawl nail punch
Cramping	Accurately and safely use cramping devices.	Cramping	The safe use of cramping devices listed below: <ul style="list-style-type: none"> cramps: sash cramp, G-cramp, mitre cramp, band cramp string and block <p>The purpose of dry cramping.</p>
Flat-frame jointing techniques	Safely manufacture flat-frame joints listed below: <ul style="list-style-type: none"> corner: butt, mitre, dowel, halving, bridle, haunched mortise and tenon T joints: butt, dowel, halving, bridle, stub and through mortise and tenon cross halving dovetail halving 	Flat-frame jointing techniques	The construction and use of the flat-frame joints listed below: <ul style="list-style-type: none"> corner: butt, mitre, dowel, halving, bridle, haunched mortise and tenon T joints: butt, dowel, halving, bridle, stub and through mortise and tenon cross halving dovetail halving <p>Selecting appropriate flat-frame joint types for given scenarios.</p>
Carcase jointing techniques	Safely manufacture carcasse construction joints listed below: <ul style="list-style-type: none"> butt corner rebate through housing stopped housing dowel 	Carcasse construction	Construction and use of the carcasse joints listed below: <ul style="list-style-type: none"> butt corner rebate through housing stopped housing dowel <p>Selecting appropriate carcasse joint types for given scenarios.</p>

Practical activity		Question paper	
Skills	Candidates are required to demonstrate the ability to:	Knowledge and Understanding	Candidates are required to demonstrate a knowledge and understanding of:
Mechanical fixings and adhesives	<p>Safely use correct mechanical fixings:</p> <ul style="list-style-type: none"> ◆ nails ◆ proprietary flat-frame fixings ◆ proprietary carcass construction fixings ◆ knock down fixings <p>Safely use wood adhesives in a workshop environment.</p>	Mechanical fixings and adhesives	<p>Ironmongery listed below:</p> <ul style="list-style-type: none"> ◆ nails: round, oval, brads, panel pins ◆ screws: round/dome head, countersink, slotted, cross-head ◆ angle brackets ◆ corner blocks ◆ knock down fixings <p>Uses of wood adhesives and glues: interior and exterior.</p>
Use and maintenance of machine and power tools	<p>Safely use the machines and power tools listed below.</p> <p>Machines:</p> <ul style="list-style-type: none"> ◆ woodturning lathe ◆ belt sander ◆ disc sander ◆ pedestal/pillar drill ◆ mortise machine <p>Power tools:</p> <ul style="list-style-type: none"> ◆ drills ◆ sanders ◆ cordless screwdrivers ◆ jig saw 	Safe use of machines and power tools	<p>Safe working practice for operating the machines, tools and processes listed below and, where indicated, the component parts:</p> <p>Machine tools:</p> <ul style="list-style-type: none"> ◆ woodturning lathe: face plate and between centre turning ◆ lathe tools: forked/butterfly centre, dead centre, revolving centre, gouge, scraper, parting chisel and skew chisel ◆ parts of the lathe: bed, tailstock, tool rest, headstock ◆ preparing a blank for turning ◆ belt sander ◆ disc sander ◆ pedestal/pillar drill ◆ drill bits: twist, countersink rose, flat and Forstner ◆ mortise machine: setting depth, checking cutting chisel/drill, positioning and securing work piece

Practical activity		Question paper	
Skills	Candidates are required to demonstrate the ability to:	Knowledge and Understanding	Candidates are required to demonstrate a knowledge and understanding of:
			<p>Power tools:</p> <ul style="list-style-type: none"> ◆ drills: corded and cordless ◆ sanders: orbital and belt ◆ cordless screwdrivers ◆ jig saw <p>Tool care and maintenance:</p> <ul style="list-style-type: none"> ◆ reporting faults ◆ inspecting cables, tool holding and guards ◆ dust extraction
Surface preparation and finishing	<p>Carry out preparation to natural wood and manmade boards before applying a finish.</p> <p>Apply finishes to natural wood and manmade boards.</p>	Surface preparation and finishing	<p>The wood preparation techniques listed below:</p> <ul style="list-style-type: none"> ◆ use of planes ◆ sanding ◆ abrasive types: glass and garnet ◆ abrasive grades: fine, medium and coarse ◆ scraping ◆ stopping ◆ filling <p>Techniques required to prepare for, and apply, the finishes listed below:</p> <ul style="list-style-type: none"> ◆ varnish ◆ stain ◆ wax ◆ oil: Danish, linseed and vegetable
Care and maintenance of tools and machinery, and safe working practices	<p>Complete a log book detailing evidence of good and safe working practices covering the following:</p> <ul style="list-style-type: none"> ◆ care and maintenance of tools and equipment ◆ reporting faults and fault reporting systems ◆ general condition before, during and after use ◆ position and condition of guards ◆ position and security of cutting tools on machine tools ◆ use of personal protective equipment ◆ setting a plane ◆ honing a chisel ◆ honing a plane iron 	Safe working practices	<p>Good practices and safe systems for general workshop and individual activities when manufacturing a wood product.</p> <p>Personal protective equipment: apron, gloves, safety goggles, safety specs, visors, dust protection.</p>
Sustainability and recycling	Understand and follow workshop recycling practices and processes.	Sustainability and recycling	<p>Best practice in selecting materials that are appropriate for a specific use.</p> <p>Understand and follow workshop recycling practices and processes.</p>