

## Higher National Unit Specification

### General information for centres

**Unit title:** Furniture: Shaped Work

**Unit code:** FOXN 35

**Unit purpose:** This Unit is designed to give candidates knowledge of the functions and limitations of shaped timber based furniture components. The practical aspects of this Unit cover the production and veneering of shaped furniture components.

On completion of the Unit the candidate should be able to:

- 1 Analyse the functions and limitations of existing shaped furniture components.
- 2 Analyse methods of producing shaped furniture components.
- 3 Demonstrate methods of producing shaped furniture components.
- 4 Investigate and demonstrate methods of veneering shaped furniture components.

**Credit points and level:** 2 HN Credits at SCQF level 8: (16 SCQF credit points at SCQF level 8\*)

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

**Recommended prior knowledge and skills:** It is recommended that candidates have prior knowledge of furniture related topics. This could be evidenced by possession of HN Furniture Units at SCQF level 7 equivalent qualification, or relevant work experience.

**Core Skills:** There are opportunities to develop the Core Skills of Problem Solving and Communication at SCQF level 6 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

**Context for delivery:** If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

**Assessment:** Candidates are required to analyse existing shaped components and report their findings on the structural properties and methods of producing various shaped furniture components. Candidates will produce furniture components and demonstrate veneering techniques on shaped items.

## Higher National Unit specification: statement of standards

**Unit title:** Furniture: Shaped Work

**Unit code:** F0XN 35

The sections of the Unit stating the Outcomes, knowledge and/or skills, and Evidence Requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the knowledge and/or skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

### Outcome 1

Analyse the functions and limitations of existing shaped furniture components

#### Knowledge and/or skills

- ◆ Properties of furniture components
- ◆ Functions of furniture components
- ◆ Limitations of furniture components
- ◆ Production methods

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by analysing five components of furniture. The analysis should make reference to:

- ◆ the function these components are performing within the structure of the furniture example
- ◆ any limitation of the furniture components
- ◆ the suitability of the materials the components are made from
- ◆ the strength, accuracy and appearance desired and achieved
- ◆ the role, if any, of adhesives in the properties of the components

The five components should be selected from the following range of production methods:

- ◆ Cut from solid
- ◆ Bricking,
- ◆ Saw Kerfing
- ◆ Slip Laminating
- ◆ Steam Bending
- ◆ Lamination
- ◆ Cold Bending
- ◆ Compound Bending
- ◆ Pre-forming

Only **one** component can be selected from each production method. Candidates should produce oral or written evidence of approximately 150 words, or equivalent, per component.

## Higher National Unit specification: statement of standards (cont)

**Unit title:** Furniture: Shaped Work

### Assessment guidelines

This Outcome could be assessed by the candidate responding to five case studies and producing a project file of written or oral evidence and graphical evidence.

This Outcome may be linked with Outcome 2.

### Outcome 2

Analyse methods of producing shaped furniture components

#### Knowledge and/or skills

- ◆ Production methods
- ◆ Tools and equipment
- ◆ Benefits and limitations of production methods
- ◆ Health and safety requirements
- ◆ Adhesives

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by analysing **five** methods of producing shaped furniture components. The evidence will include:

- ◆ an evaluation of the tools and equipment used
- ◆ the benefits and limitations of each method of production
- ◆ speed and cost of production
- ◆ need for specialised equipment
- ◆ reference to health and safety requirements
- ◆ use of adhesives

The production methods should be selected from:

- ◆ cut from solid
- ◆ bricking
- ◆ saw kerfing
- ◆ slip laminating
- ◆ steam bending
- ◆ lamination
- ◆ cold bending
- ◆ compound bending
- ◆ pre-forming

Candidates should produce oral or written evidence of approximately 150 words, or equivalent, per production method.

## Higher National Unit specification: statement of standards (cont)

**Unit title:** Furniture: Shaped Work

### Assessment guidelines

This Outcome could be assessed by the candidate producing a project file that includes analysis of five different methods of producing shaped furniture components. This file could include written or oral evidence of approximately 150 words per method, and could include illustrations.

This Outcome could be linked with Outcome 1.

### Outcome 3

Demonstrate methods of producing shaped furniture components

#### Knowledge and/or skills

- ◆ Production techniques
- ◆ Production sequences
- ◆ Material use and suitability
- ◆ Specified tolerances
- ◆ Jointing methods
- ◆ Safe working practices

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by demonstrating **four** different methods of producing shaped furniture components to given specifications.

The four different methods of production should be chosen from the following range:

Cut from solid, Bricking, Saw Kerfing, Slip Laminating, Steam Bending, Lamination, Cold Bending, Compound Bending, Pre-forming.

A suitable jointing method for connecting each component to another must be identified, shown visually and then demonstrated.

The finished component must meet its functional requirement.

All manufacturing processes should be carried out under safe working conditions and an observation schedule should be completed for each candidate.

#### Assessment guidelines

Candidates could be asked to produce examples of furniture components to meet a given specification which could be in the form of a series of workshop drawings or rods, or matching given examples. The jointing methods identified and selected should be shown visually by annotated sketches, models and/or computer generated visuals. The process of production of these components should be observed by the lecturer and recorded on an observation schedule.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Furniture: Shaped Work

### **Outcome 4**

Investigate and demonstrate methods of veneering shaped furniture components

#### **Knowledge and/or skills**

- ◆ Requirement to veneer
- ◆ Preparation of substrates
- ◆ Jointing veneers
- ◆ Veneer cutting methods
- ◆ Veneer tape
- ◆ Adhesive
- ◆ Veneer pressing methods
- ◆ Safe working practices

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their knowledge and skills by showing that they can explain the need for veneering furniture components.

- ◆ veneering techniques should be demonstrated on concave and convex work
- ◆ veneer that requires to be jointed must be done so accurately
- ◆ use of the correct tools and observation of health and safety requirements should be observed by the lecturer and recorded on an observation schedule

#### **Assessment guidelines**

Candidates could be asked to explain the need for veneering by producing a short report of a minimum of 150 words or equivalent. Additionally candidates could use two of the components manufactured in Outcome 3 as substrates for veneering.

## Administrative Information

**Unit code:** F0XN 35  
**Unit title:** Furniture: Shaped Work  
**Superclass category:** JP  
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### History of Changes:

Version	Description of change	Date

**Source:** SQA

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## Higher National Unit specification: support notes

### Unit title: Furniture: Shaped Work

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 80 hours.

### Guidance on the content and context for this Unit

This Unit is an optional Unit within the HNC/D Furniture Award.

This Unit is intended to equip students with the knowledge and understanding of the capabilities and limitations of various **timber based furniture components**, and methods of production. It is intended that students will then be able to manufacture suitable components as required. This manufacturing will also take into account any requirement to veneer such components.

Centres wishing to produce a discrete item of furniture should consider delivering this Unit alongside a project-based Unit such as *Furniture Workshop Project* or *Furniture Construction*.

### Guidance on the delivery and assessment of this Unit

#### Outcome 1

Candidates will be shown examples of furniture components manufactured in a variety of ways. Group discussion and examination of the components available will highlight their properties and uses.

It is expected that candidates will then research 5 individual examples of the various components, through their own investigation. The students will then submit a report of their findings. The report on each component should have details of: what the function of the component is; what forces may be acting on it; appraisal of how effective the component is; suitability and limitations. This may be via comparison with an alternative method of production. A photograph or illustration of the component in question, preferably in-situ, is required for identification purposes. Each component method warrants at least a 150 word oral or written report, however substance and content are more important than length of submission. Normally students will submit Outcomes 1 and 2 together, but must label their submissions as such.

#### Outcome 2

Candidates will be shown examples of furniture components manufactured in a variety of ways.

The candidates will research the various manufacturing methods used to produce the five components identified in Outcome 1, submitting a report of their findings. The report on each method should have details of: equipment required, the materials used and how they influence the methodology, speed and cost of production, the role of adhesives, accuracy and strength expected, and aesthetic qualities. Photographs or illustrations of the method in question may help with explanations of analysis. Each method warrants at least a 150 word submission. Normally candidates will submit Outcomes 1 and 2 together.

## **Higher National Unit specification: support notes (cont)**

### **Unit title:** Furniture: Shaped Work

#### **Outcome 3**

Demonstrations of possible methods of manufacture will take place in class or workshop, or on site. Where practicable, and safe to do so, students will then be expected to produce test pieces using various methods. These will be made from timber and timber derived materials.

Students will be encouraged to practice the techniques required to reach a suitable standard, allowing inclusion in a piece of furniture. The components will be manufactured to tolerances as set out in drawings/rods previously prepared, and where practicable to match exemplars.

It is envisaged that the test pieces or components, once of a suitable standard, will be used as substrates in Outcome 4 and will then be utilised in Outcome 5.

#### **Outcome 4**

Candidates should be involved in a lecturer lead discussion on why veneering takes place and what impact it has on production and resources. Each candidate will then submit a report covering their findings regards the topics discussed. It is envisaged that veneering should be seen in a positive light eg reducing waste of scarce / exotic resources, allowing both imaginative design and decoration.

Methods of selecting, cutting, jointing and laying veneer for curved surfaces will be demonstrated — the candidates practicing the techniques until reaching the required standard to allow inclusion in the Furniture item for Outcome 5.

Veneers should have no major gaps at joints. Joints should be taped whilst adhesives are setting. Minor gaps may be allowable if the type of veneer (coarse texture, burr, or similar) means gaps are indistinguishable, or may be concealed during the process of applying a surface finish.

#### ***Opportunities for developing Core Skills***

Communication skills are not formally assessed, although there is opportunity to develop skills to SCQF level 6. Candidates should be expected to produce and present written and oral work to a professional standard. The availability of suitable software packages to support the candidate should ensure a high standard of accuracy, coherence and presentation with suitable structure and format.

Candidates have an opportunity to enhance and develop their skills of Problem Solving to SCQF level 6 whilst analysing and evaluating structures, reviewing and evaluating techniques of manufacture, and employing these techniques in the manufacture of components and furniture.

### **Open learning**

This Unit is not suitable for Open learning due to the practical workshop requirements.

For further information and advice, please refer to the SQA guide *Assessment and Quality Assurance for Open and Distance Learning* [www.sq.org.uk](http://www.sq.org.uk).



## **Higher National Unit specification: support notes (cont)**

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### **Candidates with disabilities and/or additional support needs**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative Outcomes for Units. For information on these, please refer to the SQA document *Guidance on Alternative Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs*, which is available on SQA's website: **[www.sqa.org.uk](http://www.sqa.org.uk)**.

## **General information for candidates**

### **Unit title:** Furniture: Shaped Work

In this Unit you will investigate and make shaped timber and timber-based furniture components. You will look at how shaped furniture components are made and you will study different ways of shaping timber and timber-based products. You will learn about the strengths and the limitations of this type of work and the role of adhesives in the production process.

Once you have covered the theory part of the Unit, you will learn how to produce shaped furniture components. You will develop your skills in shaping components and you will learn how to joint curved or shaped components so that they can fit together.

In this Unit, you will also learn about veneers and their uses and you will develop skills in applying veneers to curved work.

Although they are not assessed, you will develop skills in communication and in problem solving as you study this Unit.