



## Higher National Unit Specification

### General information for centres

**Unit title:** Conservation Crafts: Joinery

**Unit code:** F4N0 34

**Unit purpose:** The purpose of this Unit is to introduce the candidate to the application of timber technology, joinery construction techniques and component designs to the manufacture of a joinery component found within conservation architecture. The candidate successfully completing this Unit will acquire underpinning knowledge and skill relating to the design and construction of joinery components.

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

- 1 Describe construction techniques for joinery components for internal and external joinery.
- 2 Explain how timber technology influences the manufacture of joinery components.
- 3 Produce a workshop rod, drawing and cutting list for an exterior frame of a box sash window.
- 4 Manufacture an exterior frame for a box sash window used in building conservation.

**Credit points and level:** 1 HN credit at SCQF level 7: (8 SCQF credit points at SCQF level 7\*)

*\*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:** Access is at the discretion of the centre.

**Core Skills:** There are opportunities to develop the components of Critical Thinking and Planning and Organising of the Core Skill of *Problem Solving* at SCQF level 5, although there is no automatic certification of Core Skills or Core Skills components.

**Context for delivery:** If this Unit is delivered as part 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:** Outcomes 1 and 2 could be assessed through identification, questions and graphical evidence. Outcomes 3 and 4 will be assessed through practical tasks.

## **Higher National Unit specification: statement of standards**

**Unit title:** Conservation Crafts: Joinery

**Unit code:** F4N0 34

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**

Describe construction techniques for joinery components for internal and external joinery

#### **Knowledge and/or Skills**

- ◆ Types of joinery components
- ◆ Internal joinery
- ◆ External joinery
- ◆ Construction techniques
- ◆ Section shapes

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

Describe construction techniques for specified joinery components. Candidates must correctly identify the types of joinery components for a selection of internal and external joinery. Candidates must cover at least three of the following: door, window, skirting, wall panelling, beams and floor. The construction technique must be appropriate to the components selected. Candidates must be able to produce graphical evidence of the design of section shapes. This must be appropriate to internal and external joinery and provide good weathering detail.

#### **Assessment Guidelines**

This Outcome could be assessed by asking candidates to identify types of joinery components from drawings/picture. Candidates could then be given questions in which they are asked to describe techniques. Graphical evidence for the design of selection shapes could be through annotated sketches. Candidates will not be assessed on the quality of their sketches.

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

**Unit title:** Conservation Crafts: Joinery

### **Outcome 2**

Explain how timber technology influences the manufacture of joinery components

#### **Knowledge and/or Skills**

- ◆ Timber
- ◆ Timber products
- ◆ Timber defects
- ◆ Factors influencing selection
- ◆ Influences on manufacture
- ◆ Economic use of timber

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

Explain the factors influencing the selection of timbers in relation to the manufacture of selected timber products and their joinery components. This must include timbers for use in internal and external joinery; softwood and hardwood. Candidates must:

- ◆ relate their explanation to the principles of jointing covered in Outcome 1.
- ◆ explain the importance of the economic use of timber.
- ◆ identify common timber defects. These must include: warping; twisting; shakes; capping.

This Outcome is integrated with Outcome 1 in that candidates will have to use their knowledge of construction techniques covered in Outcome 1 to complete this Outcome.

#### **Assessment Guidelines**

This Outcome could be assessed by asking candidates to identify common timber defects from drawings/picture. Candidates could then be given questions in which they are asked to explain factors influencing the selection of timbers. Explanations could be supported by graphical evidence such as annotated sketches for lengthening joints. Candidates will not be assessed on the quality of their sketches.

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

**Unit title:** Conservation Crafts: Joinery

### **Outcome 3**

Produce a workshop rod, drawing and cutting list for an exterior frame of a box sash window

#### **Knowledge and/or Skills**

- ◆ Drawing
- ◆ Workshop rod
- ◆ Cutting list procedures
- ◆ Health and safety

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ produce a working drawing of the exterior frame of a box sash window. Drawing must be to scale.
- ◆ produce a rod to full size to a given specification. Rod must:
  - include elevations, sections and construction details.
  - be produced to a standard that will allow candidates to manufacture an exterior frame of a box sash window in Outcome 4
  - be produced to the specification within a 1 mm tolerance.
- ◆ produce a cutting list to accompany the rod. This must contain sufficient detail to allow candidates to manufacture an exterior frame of a box sash window.

Candidates must comply with all health and safety requirements.

This Outcome is integrated with Outcome 4 in that candidates will use the rod, drawing and cutting list to manufacture an exterior frame of a box sash window.

#### **Assessment Guidelines**

See Evidence Requirements.

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

**Unit title:** Conservation Crafts: Joinery

### **Outcome 4**

Manufacture an exterior frame for a box sash window used in building conservation

#### **Knowledge and/or Skills**

- ◆ Planning
- ◆ Setting out
- ◆ Tool
- ◆ Equipment
- ◆ Jointing
- ◆ Assembly
- ◆ Health and safety

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

Manufacture an exterior frame for a box sash window using the rod produced for Outcome 3. The exterior framed must be manufactured using appropriate tools and equipment. The finished frame must show evidence of jointing and assembly from setting out and that manufacture has followed a logical sequence.

Candidates must comply with all health and safety requirements.

This Outcome is integrated with Outcome 3 in that candidates will use the rod, drawing and cutting list to manufacture an exterior frame of a box sash window.

#### **Assessment Guidelines**

See Evidence Requirements.

## Administrative Information

**Unit code:** F4N0 34  
**Unit title:** Conservation Crafts: Joinery  
**Superclass category:** TG  
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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: Conservation Crafts: Joinery

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 40 hours.

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

This Unit is designed to help candidates to gain an understanding and appreciation of joinery techniques and skills used within conservation crafts. It will enable candidates to manufacture a joinery component with conservation needs affecting choice of shapes, construction and selection of suitable materials.

In addition to the information in the Statement of Standards the following is given for guidance.

Outcome 1 includes knowledge of materials and design of sections for good weathering for any joinery component. In addition to the required knowledge and skills and Evidence Requirements, it would be beneficial for candidates to know about appropriate adhesives for internal and external joinery.

For Outcome 4, candidates are required to manufacture an exterior frame of a box sash window. This is so that they can gain an understanding of manufacture. This Outcome is not designed to assess advanced skills in manufacture and therefore it is not expected that industry standards will be met in full. However, candidates should be encouraged to work towards these standards and centres should set reasonable tolerance levels in advance of the assessment. Suggested tolerance levels are:

- ◆ overall height + or - 5mm
- ◆ overall width + or - 5mm
- ◆ diagonal difference + or - 3mm
- ◆ 50% Joints — no gaps exceeding 2mm
- ◆ all surface finishes pencil marks removed

There may also be scope to cord and weight supplied sashes and hang these into this window, applying all ironmongery as needed. However, this is not an assessed part of the Unit and it is at the discretion of the centre whether it wants to offer this as additional teaching and learning.

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

**Unit title:** Conservation Crafts: Joinery

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

The use of videos, visual aids, drawings and manufacturers' catalogues and site visits would assist the achievement of the underpinning knowledge required for this Unit.

Demonstrations by tutors/trainers are essential, especially in the use of power tools and woodworking machinery, section shapes for good weather protection when manufacturing doors and windows.

Safety factors should be highlighted at all times.

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

In undertaking this Unit, candidates will have the opportunity to develop the components of Critical Thinking and Planning and Organising of the Core Skill of *Problem Solving* to SCQF level 5. Candidates will be required to plan the manufacture of a frame by producing a rod, drawing and cutting list and then manufacture the frame in relation to these.

### **Open learning**

Due to the high practical content of this Unit it is unsuitable for open or distance learning.

### **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. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* ([www.sqa.org.uk](http://www.sqa.org.uk)).



## General information for candidates

### Unit title: Conservation Crafts Joinery

The purpose of this Unit is to introduce you to the application of timber technology, joinery construction techniques and component designs to the manufacture of a joinery component applied to architectural conservation.

By undertaking this Unit you will gain experience in both theoretical and practical applications of joinery in relation to architectural conservation.

The Unit has four Outcomes. Two Outcomes are theory based and the remaining two are based on practical work.

- Outcome 1: Will allow you to understand how different construction techniques are used in both internal and external joinery, and how the designs of section shapes are appropriate and provide good weathering detail.
- Outcome 2: Will enable you to understand timber technology and how it influences the manufacture of joinery components. You will also understand the importance of the economic use of timber.
- Outcome 3: You will manufacture a workshop rod, a working drawing and a cutting list that will be integrated with Outcome 4.
- Outcome 4: You will manufacture the external frame of a box sash window.

There may also be scope to cord and weight supplied sashes and hang these into this window, applying all ironmongery as needed. However, this is not an assessed part of the Unit and will only be offered at the discretion of the centre.