



Higher National Unit specification

General information for centres

Unit title: Conservation Crafts: Stonemasonry

Unit code: F50E 34

Unit purpose: This Unit is designed to introduce candidates to the use of stonemasonry in the repair and restoration of stonework. It looks at the methods, materials and equipment used in the repair, construction and pointing of stonework and gives candidates the opportunity to use these in practical stonemasonry tasks.

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

- 1 Draw Roman mouldings.
- 2 Explain methods of stonework repair and maintenance.
- 3 Construct a small stonewall to a given specification.
- 4 Safely use tools and equipment to apply three different types of pointing stonework.

Credit points and level: 1 HN credit at SCQF level 7: (7 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: It would be beneficial if candidates had a basic knowledge and understanding of the construction industry.

Core Skills: There are opportunities to develop the Core Skills of *Communication* (Reading and Writing), *Numeracy* (Using Numbers), *Information Technology* (Using IT) and *Problem Solving* (Critical Thinking) all at SCQF level 5 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: The assessment will consist of a construction drawing to current regulations. A report which encompasses methods of stone repair. A practical workshop based assessment in which construction methods are followed and the tolerances are met. Reproduce three methods of practically point stonework. Health and safety must be adhered to at all times. The candidate must achieve all the minimum evidence specified for each Outcome in order to pass the Unit.

Higher National Unit specification: statement of standards

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Outcome 1

Draw Roman mouldings

Knowledge and/or Skills

- ◆ Roman mouldings
- ◆ Stonemasonry components
- ◆ Drawing instruments.
- ◆ Scale
- ◆ Technical drawing
- ◆ British Standards

Evidence Requirements

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

- ◆ draw a selection of Roman mouldings including ovolo, cavetto, scotia, cyma reversa and cyma recta mouldings. The drawings should make use of a variety of drawing instruments including scale ruler and compass and:
- ◆ incorporate stonemasonry components, cyma reversa, cavetto, ovolo
- ◆ be drawn to a prescribed scale, including one drawing in a scale of 1:1
- ◆ adhere to British Standards

Assessment Guidelines

Assessment could be a written question detailing given sizes and to produce the mouldings to a given scale.

Higher National Unit specification: statement of standards (cont)

Unit title: Conservation Crafts: Stonemasonry

Outcome 2

Explain methods of stonework repair and maintenance

Knowledge and/or Skills

- ◆ Methods of repairing stonework
- ◆ Practical technical equipment
- ◆ Restoration materials

Evidence Requirements

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

- ◆ produce a report on two methods of stonework repair used within the conservation spectrum. The report must explain the methods and equipment required to carry a small scale repair to a finished stone of one square metre. Explain the methods and the tools required to carry out the operation. Explain what materials are required for the restoration. One of the methods reported must be stone replacement.

Assessment Guidelines

The candidate could provide reportage of methods used in stonemasonry repair in an electronic format. There should be sufficient evidence to clearly define all aspects used in stone repair.

Higher National Unit specification: statement of standards (cont)

Unit title: Conservation Crafts: Stonemasonry

Outcome 3

Construct a small stonewall to a given specification

Knowledge and/or Skills

- ◆ Hand skills for a stonewall construction
- ◆ Checks for small stonework construction
- ◆ Sequences of operations for a stonewall construction
- ◆ Tools and equipment
- ◆ Materials
- ◆ Health and safety

Evidence Requirements

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

- ◆ analyse a specification, accompanied by practical drawings, to select appropriate tools and equipment to construct the stonewall
- ◆ construct a stonewall:
 - to a minimum of 2.5 m in length and 0.45 m in height
 - following the correct sequence of operations relevant to the type of construction
 - which does not display excessive staining
 - within the tolerances of: plumb +/- 15 mm; level +/- 15 mm; alignment +/- 15 mm
 - demonstrating correct hand skills
- ◆ comply with health and safety procedures

Assessment Guidelines

A practical assignment of building a small stone wall possibly as a group activity. The stonework should meet given tolerances. A practical drawing should be supplied with the given specification. Health and safety must be adhered to at all times.

Higher National Unit specification: statement of standards (cont)

Unit title: Conservation Crafts: Stonemasonry

Outcome 4

Safely use tools and equipment to apply three different types of pointing stonework

Knowledge and/or Skills

- ◆ Types of pointing
- ◆ Tools and equipment
- ◆ Material
- ◆ Sequence of operations
- ◆ Health and safety procedures

Evidence Requirements

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

- ◆ point a small stonewall construction using three different types of pointing, one of which must be recess pointing. The pointing should not display excessive staining on the facework of the stone.
- ◆ use the correct tools, equipment and material for each to the three different types of pointing applied.
- ◆ employ the correct sequence of operations during the pointing procedures.
- ◆ adhere to health and safety procedures throughout the pointing process.

The pointing must be applied to a minimum area of 0.5 m² for each type of pointing.

Assessment Guidelines

Demonstrate three different types of pointing used within stonework. The pointing could be incorporated into Outcome 3.

Administrative Information

Unit code: F50E 34

Unit title: Conservation Crafts: Stonemasonry

Superclass category: TG

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History of changes:

Version	Description of change	Date

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Higher National Unit specification: support notes

Unit title: Conservation Crafts: Stonemasonry

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 has been written to allow a practical awareness of stonemasonry within the restoration and conservation field.

- ◆ Drawing of Roman mouldings to a standard that accepted is within industry.
- ◆ Produce a written report to create a small stonework repair, ensuring that procedures are followed and the method is acceptable within industry.
- ◆ Experiencing a practical situation of stonework.
- ◆ Outcome 1: Stonemasonry components such as a cavetto, ovollo and cyma reversa moulds drawn using instruments such as scale rules and compasses.
- ◆ Outcome 2: Repair methods that are currently used are stone replacement indenting or a plastic repair. All methods are used in specific situations and utilise common tools such as tungsten tipped chisels and masons mallet.
- ◆ Outcome 3: Types of wall that could be utilised are coursed and random rubble walling. These walls could consist of sandstone or limestone which allows good pointing conditions. Pointing keys and trowels could be utilised to form pointing on the stonework with minimal staining to the stonework.
- ◆ Outcome 4: The creation of pointing using different finishes. Recessed and flush pointing could be utilised to show the main different method incorporated.

This Unit is at SCQF level 7 and is a mandatory Unit within the HNC and HND Architectural Conservation.

In designing this Unit it has been created using a range of topics that would be expected to be covered by lecturers. Whilst it is not mandatory for a centre to use this list of topics it is strongly recommended that it does to ensure continuity of teaching and learning across the Units and because the assessment exemplar pack for this Unit is based on the list of topics in each Outcomes.

Guidance on the delivery and assessment of this Unit

This Unit should be experienced within a practical work area and a classroom environment for the theoretical exercise. Modern practices should be maintained with a knowledge of historical changes.

Opportunities for developing Core Skills

The following grid provides a general guide to opportunities for the development of Core Skills in this Unit. Opportunities for the development of Core Skills at the output level are more fully identified in the Core Skills Sign Posting Guide.

Higher National Unit specification: support notes (cont)

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Core Skill (level 5)	Outcome 1	Outcome 2	Outcome 3	
1 Communication				
Reading	✓	✓		
Writing	✓	✓		
Oral				
2 Numeracy				
Using Number			✓	✓
Using Graphical Information	✓			
3 IT				
Using Information Technology	✓	✓		
4 Problem Solving				
Critical Thinking			✓	✓
Planning and Organising			✓	✓
Reviewing and Evaluating			✓	✓
5 Working with Others			✓	✓

Open learning

As teaching and learning involves practical tasks and specialist equipment and tools they are not suited to delivery by 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).

General information for candidates

Unit title: Conservation Crafts: Stonemasonry

You will receive a mix of practical and theoretical experiences. An introduction to stonemasonry practical works which can improve hand skills.

In this Unit the student will gain experience in technical drawing using drawing instruments such as a compass and a scale ruler. These drawings will be relevant to a stonework background with conservation theme.

Stone repair methods will be investigated and researched and reported within a stonework field. The methods of building a small stonewall construction developing hand skills. Within this stonewall construction you will experience three different types of pointing.

You will experience different methods of pointing a wall used in the conservation field of stonemasonry.