



QCF Unit and Assessment Specification

Unit title	Produce and Electroform Precious Metal Objects
Ofqual Unit code	H/506/2467
SQA Unit code	H75B 80
SSC Ref	J4.18

History of changes

Publication date: August 2014

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Version number	Date	Description	Authorised by

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QCF Unit specification

Title	Produce and Electroform Precious Metal Objects	
Level	4	
Credit value	18	
Learning Outcomes	Assessment Criteria	
The learner will:	The learner can:	
1 Understand the principles of electroforming in jewellery and silverware manufacture.	1.1 Explain how the relevant mathematical formulae and calculations can be applied.	1.2 Describe the use of stopping agents and solvents.
	1.3 Critically evaluate the limitations of electroforming.	
2 Understand how to use electroforming techniques.	2.1 Describe how unnecessary damage to metal surfaces can be avoided.	2.2 Describe how to select the correct chemicals and equipment for prescribed tasks and processes.
	2.3 Describe the materials used to create articles.	2.4 Describe how to make electroforming matrix models and aids.
	2.5 Compare the characteristics of mandrel/matrix solutions.	2.6 Describe the dangers of interactions of materials during production.
	2.7 Describe the various contamination problems that may occur.	

Learning Outcomes	Assessment Criteria
The learner will:	The learner can:
<p>3 Be able to use electroforming techniques in the manufacture of precious metal items.</p>	<p>3.1 Implement electroforming processes with a range of materials including:</p> <ul style="list-style-type: none"> ◆ wood ◆ metal ◆ wax ◆ plastic <p>3.2 Implement work in a manner that does not cause risk or injury to themselves or others.</p> <p>3.3 Implement work in a manner that prevents damage to components and equipment.</p>
<p>4 Be able to evaluate own activity to improve future performance.</p>	<p>4.1 Assess the relative success of the methods used to identify areas for improvement.</p> <p>4.2 Evaluate industry research and information to identify where new methods can be used.</p> <p>4.3 Develop conclusions as to how new methods can be improved.</p> <p>4.4 Make recommendations as to how new methods might effectively be implemented.</p>

Additional information about the Unit
Unit purpose and aim(s)
This Unit covers the skills and knowledge required to produce finished articles using appropriate electro-forming techniques.
Unit expiry date
31 December 2015
Details of the relationship between the Unit and relevant National Occupational Standards (if appropriate)
This Unit is based on National Occupational Standards for Level 4 Diploma in Jewellery Manufacture.
Details of the relationship between the Unit and other standards or curricula (if appropriate)
N/A
Assessment requirements specified by a sector or regulatory body (if appropriate)
Culture and Creative Skills
Endorsement of the Unit by a sector or other appropriate body (if required)
N/A
Location of the Unit within the subject/sector classification system
9.2 Crafts, Creative Art and Design
Name of the organisation submitting the Unit
Scottish Qualifications Authority
Availability for use
Shared
Availability for delivery
August 2014
Guided Learning Hours
116

QCF Assessment specification

Assessment (evidence) Requirements

The learner should submit a technical journal/workbook, describing the following.

Learning Outcome 1

The use of stopping agents and solvents. An explanation of how the relevant mathematical formulae and calculations can be applied. A critical evaluation of the limitations of electroforming.

Learning Outcome 2

How to select the correct chemicals and equipment for prescribed tasks and processes. The materials used to create articles. The dangers of interactions of materials during production. The various contamination problems that may occur. The action to be taken when faults arise with equipment. How unnecessary damage to metal surfaces can be avoided. How to make electroforming mandrel models. The learner should compare the characteristics of mandrel/matrix solutions, and the precautions that should be taken to avoid contamination.

Learning Outcome 3

Product evidence showing that the learner can implement the electroforming process with a range of materials including:

- ◆ wood
- ◆ metal
- ◆ wax
- ◆ plastic

The learner should implement work in a manner that does not cause risk or injury to themselves and others and that prevents damage to components and equipment.

Learning Outcome 4

Logbook/workbook showing that the learner has assessed the relative success of the methods used and identify areas for improvement. Evaluate industry research and information to identify where new methods can be used. Develop conclusions as to how new methods can be improved and make recommendations as to how new methods might be effectively implemented.

Guidance on Instruments of Assessment

Learning Outcome 1

Checklist for all the Evidence Requirements above.

Learning Outcome 2

Checklist for all the Evidence Requirements above.

Learning Outcome 3

Assessment checklist for product evidence and observation checklist of learner activity.

Learning Outcome 4

Assessment checklist for above.