



Higher National Unit specification

General information for centres

Unit title: Jewellery: Manufacturing Techniques Advanced

Unit code: F3X7 35

Unit purpose: This Unit is designed to provide candidates with the skills required to use advanced manufacturing techniques to manufacture a complex item of jewellery.

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

- 1 Evaluate advanced manufacturing techniques.
- 2 Produce a solution to a given brief
- 3 Use advanced manufacturing techniques to construct a complex item of jewellery.

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: Access to this Unit will be at the discretion of the centre. However, it is recommended that candidates have a basic understanding of construction processes and terminologies and it would be beneficial if candidates had completed the HN Unit *Jewellery: Manufacturing Techniques*.

Core Skills: There are opportunities to develop the Written Communication component of the Core Skill of *Communication* at SCQF level 6, *Working with Others* at SCQF level 5 and *Problem Solving* 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: Evidence for this Unit will be generated by practical assessments and technical notes. The Outcomes may be assessed on an individual basis or a combined assessment can be used to cover all three Outcomes.

Higher National Unit specification: statement of standards

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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

Evaluate advanced manufacturing techniques

Knowledge and/or Skills

- ◆ Advanced Manufacturing Techniques
- ◆ Materials
- ◆ Equipment
- ◆ Safe working Practices
- ◆ Problems

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can evaluate four advanced manufacturing techniques used in jewellery manufacture. To carry out this evaluation, candidates must:

- ◆ carry out four advanced manufacturing techniques used in jewellery manufacture and use appropriate materials and equipment for each of the advanced manufacturing techniques selected.
- ◆ produce detailed technical notes that support evaluation of the four techniques. The evaluation must include why the techniques demonstrate advanced manufacturing, any problems encountered and how these problems were overcome.

Candidates must use safe working practices when carrying out techniques.

This Outcome is integrated with Outcomes 2 and 3 in that two of the techniques from this Outcome will be used to construct a piece of jewellery in Outcome 3.

Assessment Guidelines

Technical notes to support work done could be presented in a work/sketchbook. These notes could be in the form of text and illustrations or alternative formats could be used such as web, video or audio. Samples could be produced to support any notes and observation checklists could also be used.

Higher National Unit specification: statement of standards (cont)

Unit title: Jewellery: Manufacturing Techniques Advanced

Outcome 2

Produce a solution to a given brief

Knowledge and/or Skills

- ◆ Design selection
- ◆ Dimensions
- ◆ Materials
- ◆ Costs
- ◆ Selling prices

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can produce a solution to a given brief, for the construction of a complex item of jewellery.

Candidates must demonstrate that they have interpreted the brief by:

- ◆ producing drawings of designs for the potential production of a complex item of jewellery.
- ◆ selecting one design that incorporates at least two advanced manufacturing techniques. The design and techniques must be appropriate to the brief. The reasons for selection of the design must be clearly stated and the candidates must describe the advanced manufacturing techniques including any potential problems and how the techniques chosen will meet the requirements of the brief.

For the chosen design and techniques candidates must:

- ◆ calculate dimensions of the item of jewellery.
- ◆ specify material requirements.
- ◆ calculate the material costs and labour costs for the item of jewellery. This should include the costs of metals, gemstones and findings.

This Outcome is integrated with Outcomes 1 and 3 in that two of the techniques from Outcome 1 and the design selected in this Outcome will be used to construct a piece of jewellery in Outcome 3.

Assessment Guidelines

Candidates could produce a report or technical notes that include drawings, designs, the manufacturing techniques and details of the dimensions, materials and costings required to produce the jewellery item, as well as any problems arising.

Higher National Unit specification: statement of standards (cont)

Unit title: Jewellery: Manufacturing Techniques Advanced

Outcome 3

Use advanced manufacturing techniques to construct a complex item of jewellery

Knowledge and/or Skills

- ◆ Preparation
- ◆ Construction
- ◆ Finishing
- ◆ evaluation

Evidence Requirements

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

- ◆ source appropriate material.
- ◆ carry out pattern transfer and marking out.
- ◆ construct a complex item of jewellery using at least two advanced manufacturing techniques. The item must be finished and polished to a professional standard with no obvious faults.
- ◆ produce technical notes to support the process followed in the construction of the finished piece of jewellery including, any problems and subsequent solutions.
- ◆ evaluate the work undertaken. This must include an overview of the techniques, reasons for choices made and the extent to which the requirements of the brief were met. The evaluation must be informed and supported by the technical notes produced in all Outcomes.

This Outcome is integrated with Outcomes 1 and 2 in that the two of the techniques from this Outcome 1 and the design from Outcome 2 will be used to create a piece of jewellery for Outcome 3.

Assessment Guidelines

Candidates should produce evidence in the form of a finished item of jewellery which clearly conforms to the original brief. The item should be an accurate representation in terms of materials, proportions and finish.

Administrative Information

Unit code: F3X7 35

Unit title: Jewellery: Manufacturing Techniques Advanced

Superclass category: JH

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Higher National Unit specification: support notes

Unit title: Jewellery: Manufacturing Techniques Advanced

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

Whilst this Unit may be delivered on a stand alone basis it has been developed as a mandatory Unit within the HND Jewellery to provide candidates with the underpinning knowledge of advanced jewellery manufacturing techniques, for jewellery manufacture tied to the commercial awareness required by the industry.

Candidates are required to consider a range of advanced techniques. Advanced techniques may include those undertaken at a lower SCQF level but which need to be demonstrated to SCQF level 8 in this Unit. For example, SCQF level 7 would expect a candidate to demonstrate a technique in a straightforward way, SCQF level 8 would expect a candidate to adapt this technique within accepted standards. Other advanced techniques could include: inlay, raising, repousse and chasing, press forming, carving and filigree.

The Unit allows the candidate to develop a range of advanced techniques through to interpretation of a design brief using advanced manufacturing techniques followed by the construction of a complex item of jewellery. The complexity of the item must reflect the brief and the item must involve the use of two advanced manufacturing techniques and may be complex in regard to the consideration of design, materials and techniques involved. The finished item must be of a professional standard without obvious flaws.

Guidance on the delivery and assessment of this Unit

This Unit is intended to give the candidate an opportunity to experience the range of advanced fabrication techniques used in jewellery making. The practical nature of this subject area suggests that the most appropriate delivery would be by a combination of lecture, demonstrations, discussions and workshops. Exemplars would be advantageous to introduce the candidate to planning and selection of appropriate construction and finishing methods.

Having carried out initial investigations, candidates should select four advanced techniques. These techniques should be used to influence the development of the finished pieces and candidates may evaluate the techniques with the finished item in mind. Candidates should have access to a wide variety of tools and materials with which to experiment but also be encouraged to source their own materials.

Safe and considerate working practices and studio management should be emphasised at all times particularly when sharing facilities or equipment.

When selecting the design for development, candidates should consider the practicalities of producing their chosen designs including materials and costs. Development of design chosen to meet the brief could be supported with drawings that show clear progression from the initial ideas based on the brief to the final designs. This could be presented in work/sketchbook format.

Higher National Unit specification: support notes (cont)

Unit title: Jewellery: Manufacturing Techniques Advanced

Throughout the Unit, candidates should be encouraged to critically reflect on their work and to discuss considerations that influence their creative choices with the tutor.

The selection of the final design should be appropriate to the brief and show consideration of the materials, costs and techniques to be used in the production of the finished piece.

Finished pieces of jewellery should be produced to a commercial standard and use appropriate construction methods and materials. Candidates should show a clear understanding of the qualities of the chosen materials and techniques and use these appropriately within their finished pieces.

It is recommended that all Outcomes be assessed holistically at the end of the Unit.

Opportunities for developing Core Skills

There are opportunities to develop the Written Communication component of the Core Skill of *Communication* at SCQF level 6, *Working with Others* at SCQF level 5 and *Problem Solving* at SCQF level 6 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

The written component of the Core Skill of *Communication* could be developed through the presentation of detailed technical notes or reports that support the evaluation of techniques used; interpretation of the brief and production of the finished item of jewellery.

There may be opportunities to develop the Core Skill of *Working with Others* at SCQF level 5 throughout this Unit as candidates will have to work with others in negotiating the use of equipment, tools and workspace in order to complete the practical requirements of the Unit.

The Unit requires candidates to interpret a brief, propose a solution, construct a piece of jewellery designed to meet the requirements of the brief and to evaluate this process. This approach to assessment and delivery provides the opportunity to develop all components of the Core Skill of *Problem Solving* at SCQF level 6.

Open learning

This Unit is not well suited to delivery by distance learning because it requires that candidates should be supervised due to health and safety requirements. It also requires access the use of a fully equipped workshop.

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

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Whilst this Unit may be delivered on a standalone basis it has been developed as a mandatory Unit within the HND Jewellery to provide you with the underpinning knowledge of advanced jewellery manufacturing techniques, tied to the commercial awareness required by the industry. Ideally, before undertaking this Unit you will have completed the HN Unit *Manufacturing Techniques*.

In this Unit you will be required to evaluate a range of advanced manufacturing techniques. Advanced techniques may include those undertaken at a lower SCQF level (eg techniques developed in the HN Unit *Manufacturing Techniques*, but you will need to demonstrate these techniques to SCQF level 8 in this Unit. For example, SCQF level 7 would expect you to demonstrate a technique in a straightforward way, SCQF level 8 would expect you to adapt this technique within accepted standards. Other advanced manufacturing techniques could include: inlay, raising, repousse and chasing, press forming, carving and filigree.

The assessments for all three Outcomes in this Unit are linked. You are expected to evaluate four manufacturing techniques for Outcome 1 two of which you will carry through to the final construction of a complex item of jewellery. You will then use your knowledge of advanced manufacturing techniques to respond to a design brief in both technical and commercial terms in order to produce a design through to the construction of a finished piece of complex jewellery. The construction of your jewellery item must use two advanced manufacturing techniques and the item must be finished to a professional standard with no obvious flaws.

There are opportunities to develop the written component of the Core Skill of *Communication* at SCQF level 6, the Core Skill of *Working with Others* at SCQF level 5 and the Core Skill of *Problem Solving* at SCQF level 6 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.