

Higher National Unit Specification

General information for centres

Unit title: Printing: Packaging

Unit code: FOPN 34

Unit purpose: This Unit is designed to enable a candidate to identify and evaluate printing production techniques used in packaging. It is recommended as part of a course of study in printing or by candidates in relevant employment.

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

- 1 Evaluate the suitability of production equipment and techniques used in the printing of packaging.
- 2 Produce an item of packaging using a printing press to match an agreed sample.
- 3 Describe the range of ancillary techniques used to finish packaging items.

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 to this Unit is at the discretion of the centre. Candidates should have knowledge of offset litho presswork. This could be demonstrated by the achievement of the HN Unit Single Colour Offset Litho Printing at SCQF level 7, an equivalent qualification or relevant work experience.

Core Skills: There may be opportunities to gather evidence towards Core Skill Working with Others 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: In Outcome 2 the candidate must produce multi-colour prints of an item of packaging that matches the agreed sample. Outcomes 1 and 3 should be assessed by the successful completion of a written assessment that will examine the candidate's evaluation of production equipment and identification of print finishing techniques. Candidates will also require to demonstrate an ancillary finishing technique.

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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 the suitability of production equipment and techniques used in the printing of packaging

Knowledge and/or skills

- ◆ Step and repeat production
- ◆ Layout components
- ◆ Image locations
- ◆ Colour matching systems
- ◆ Colour viewing equipment
- ◆ Operation of multi colour presses
- ◆ Production techniques
- ◆ Measurement of coding systems

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and skills by showing that they can evaluate the suitability of production equipment and techniques appropriate for the printing of two different types of packaging. A successful response would include detail of:

- ◆ appropriate choice of equipment relative to product
- ◆ limitations imposed by the equipment
- ◆ account being taken of colour requirements and matching for the product
- ◆ location of images in an economic and technically correct manner
- ◆ quality control for bar coding

This assessment will be conducted in open-book unsupervised conditions.

Assessment guidelines

The assessment for this Outcome may be written or oral and may be a response to a set of standard questions or case studies posed in the context of a given range of packaging items.

Higher National Unit specification: statement of standards (cont)

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Outcome 2

Produce an item of packaging using a printing press to match an agreed sample

Knowledge and/or skills

- ◆ Colour matching
- ◆ Press settings
- ◆ Substrates
- ◆ Fitting, positioning and colour balancing inks
- ◆ Measurement of print and colour characteristics
- ◆ Quality control

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and skills by showing that they can produce an item of printed packaging generated through the operation of an offset litho press. Each candidate must generate one complete set of progressive proofs to a quality matching an agreed sample. An observation schedule should be used to record candidate performance.

This will be completed under supervised, controlled open-book conditions. Candidates may work as a group when operating the press.

Assessment guidelines

The assessment for this Outcome is a combination of practical work with related written or oral records. Whilst group work is appropriate to the practical elements of course work, individual evidence detailing the stages in production will be necessary to further demonstrate breadth of understanding of theoretical knowledge and skills. If this is tested as group work the contribution of each candidate should be clearly identified.

Outcome 3

Describe the range of ancillary techniques used to print finish packaging items

Knowledge and/or skills

- ◆ Application of coatings
- ◆ Cutting and creasing methods
- ◆ Foil blocking techniques
- ◆ Embossing styles
- ◆ Additional processes
- ◆ Range of hybrid presses
- ◆ Security methods

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and skills by showing that they can correctly describe three different ancillary techniques and demonstrate one of these techniques. Each description should clearly outline:

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- ◆ suitability and purpose
- ◆ process involved
- ◆ any specialist materials used

Candidate demonstration should be recorded in an observation schedule and a sample of work retained.

Assessment guidelines

The assessment for this Outcome is a combination of practical work and related written or oral records. Whilst group work is appropriate in relation to the practical elements of course work, individual evidence detailing the stages in production will be necessary to further demonstrate breadth of understanding of theoretical knowledge and skills.

Administrative Information

Unit code: F0PN 34
Unit title: Printing: Packaging
Superclass category: KH
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History of Changes:

| Version | Description of change | Date |
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Higher National Unit specification: support notes

Unit title: Printing: Packaging

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 was developed for the HNC/D Printing where it is optional. It is intended for those who are taking a qualification in Printing at Higher National level or who have experience in this or related fields and wish to further their knowledge and experience of packaging.

The following notes give some additional information on each Outcome.

Outcome 1

Candidates will be given an overview of the range of equipment and techniques.

- ◆ Platemaking equipment and software.
- ◆ Importance of colour accuracy.
- ◆ Ink matching techniques.
- ◆ Colour viewing standards.
- ◆ Accelerated drying systems.
- ◆ Range of suitable presses for packaging production.
- ◆ Coding systems.
- ◆ Types of packaging. Production techniques for active, intelligent, diagnostic, secure and ‘smart’ packaging.

Outcome 2

A range of practical demonstrations and investigations will allow the candidate to gain an overview of the uses of the following in a range of contexts:

- ◆ Adjustment of press settings to suit typical packaging substrates.
- ◆ Ink mixing to match colour samples.
- ◆ 2-4 colour set of plates supplied.
- ◆ Make-ready and printing of packaging to match sample.
- ◆ Monitor quality using a spectrophotometer and densitometer.
- ◆ One complete set of programme proofs to be submitted as evidence for assessment purposes with a completed pro forma checklist attached.

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Outcome 3

Candidates will be given an overview of the range of ancillary techniques used to print finish packaging. This can be taught in conjunction with Outcome 2 to permit holistic assessment.

- ◆ Varnishes, seals and coatings. Finish and protection.
- ◆ Cutting and creasing methods.
- ◆ Foil blocking methods and effects.
- ◆ Metallic finishes, gold/silver inks, bronzing.
- ◆ Embossing.
- ◆ Additional processes. Screen Printing. Thermography, Holograms.
- ◆ Hybrid presses.
- ◆ Security methods.

Guidance on the delivery and assessment of this Unit

It is intended that students will produce an item of multi-coloured packaging using an offset litho press to print from supplied plates.

Quality control aids and devices will be used during the print production.

Candidates will be provided with samples of a range of packaging products and ancillary techniques. They should annotate and make reference in the written assessment.

Outcomes 1 and 3 are written assessments and Outcome 2 is a practical assessment. There is also a practical element to Outcome 3.

Opportunities for developing Core Skills

There are opportunities for the development of Working with Others at SCQF level 6 in this Unit. These are evidenced within the practical tasks outlined in Outcome 2 where team work in operating printing press equipment is naturally occurring. This will incorporate:

- ◆ Identifying the main tasks to be undertaken.
- ◆ Agreeing allocation of responsibilities.
- ◆ Seeking and providing support as required.

Open learning

This Unit as a whole is not suitable for open learning due to the specialist nature of the machinery involved in Outcomes 2 and 3. It may be possible to cover Outcome 1 and aspects of Outcome 3 in an open learning manner. Centres should make every effort to ensure that the candidates' work is authentic. This could be done by oral questioning or supervised write-up of material.

For further information and advice, please see the SQA guide, *Assessment and Quality Assurance of Open and Distance Learning* (www.sqa.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**.

General information for candidates

Unit title: Printing: Packaging

Producing packaging is now a big part of the work undertaken by all sorts of printing organisations. Packaging is seen as part of a company's corporate image and therefore its production is important not only to ensure that the consumer sees an attractive product to purchase but that the product remains in good condition inside the packaging.

In this Unit you will learn all about using different kinds of specialist machinery which is used to produce printed packaging. You will also have the opportunity to produce an item of printed packaging and carry out at least one specialist ancillary finishing technique such as adding metallic finishes or cutting packaging to shape, for example for producing cartons.

Another important aspect of this Unit is learning about bar coding — an important aspect of packaging, especially for supermarkets.

You will be asked as part of your assessment to write about some of the different equipment and techniques used in the printing of packaging. As part of your studies you will develop skills in working with others.