



## National Unit specification: general information

**Unit title:** Screen Printing: Four Colour Halftone Process (SCQF level 6)

**Unit code:** FV57 12

**Superclass:** KH

**Publication date:** September 2011

**Source:** Scottish Qualifications Authority

**Version:** 01

## Summary

The purpose of this Unit is to enable candidates to develop their knowledge, understanding and skills in the screen printing process. Candidates will learn how to collect suitable images for four colour halftone screen printing. On completion of the Unit candidates will be able to prepare, produce and print four colour halftone images for the screen printing process.

This is an optional Unit within the National Certificate in Screen Printing at SCQF level 5. It is also available as a freestanding Unit. It is suitable for school leavers and adult learners who are undertaking a screen printing course or who are already working in the industry.

## Outcomes

- 1 Explain the four colour halftone screen printing process.
- 2 Produce four colour halftone prints.
- 3 Review the production work and the quality of the final prints,

## Recommended entry

While entry is at the discretion of the centre, candidates would normally be expected to have attained one of the following, or equivalent:

- ◆ *Screen Printing: An Introduction to the Process* (SCQF level 5)
- ◆ *Creative Printmaking with Photography: Digital Techniques* (SCQF level 5)

## **General information (cont)**

**Unit title:** See Unit writer brief

## **Credit points and level**

1 National Unit credit at SCQF level 6 (6 SCQF credit points at SCQF level 6\*)

*\*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.*

## **Core Skills**

Opportunities to develop aspects of Core Skills are highlighted in the support notes of this Unit specification.

There is no automatic certification of Core Skills or Core Skill component in this Unit.

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

**Unit title:** Screen Printing: Four Colour Halftone Process (SCQF level 6)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

### **Outcome 1**

Explain the four-colour halftone screen printing process.

#### **Performance Criteria**

- (a) Describe the basic principles of the four-colour halftone screen printing technique.
- (b) Describe the structure of the four colour process.

### **Outcome 2**

Produce four colour halftone prints that meet the requirements of a given brief.

#### **Performance Criteria**

- (a) Research and collate suitable visual image types according to the given brief
- (b) Produce separation image carriers suitable for four colour halftone screen printing.
- (c) Produce stencils for halftone printing.
- (d) Demonstrate safe and effective use of screen printing equipment and materials.
- (e) Produce prints of four colour halftone image that meet the requirements of a given brief.

### **Outcome 3**

Review the production work and the quality of the final prints

#### **Performance Criteria**

- (a) Describe the parameter for producing quality four colour halftone print.
- (b) Identify print quality that meets the requirements of a given brief.
- (c) Review the production work accurately and cover all stages.
- (d) Present findings in a concise, accurate and logical manner.

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

**Unit title:** Screen Printing: Four Colour Halftone Process (SCQF level 6)

### Evidence Requirements for this Unit

Evidence is required to demonstrate that candidates have achieved all Outcomes and Performance Criteria.

Evidence is required to demonstrate that the candidate has achieved all Outcomes and Performance Criteria. The candidate will also observe all current health and safety legislation relating to machinery and the safe use of chemicals and materials at all times.

Written and/or oral record evidence along with performance and product evidence should be provided by the candidate to demonstrate achievement of all the Outcomes and Performance Criteria.

#### Outcome 1: Written/oral evidence

The evidence will be produced under open-book conditions and meet the requirements of a given brief. Evidence will include:

An accurate description of the four colour halftone screen printing process, which includes:

- ◆ film separations for four colour and dots per inch (DPI)
- ◆ mesh count of screen to be used and moiré pattern
- ◆ an accurate description of the structure of the four colour process which includes:
  - tonal range for each colour separation
  - how each colour combines with the registration lays

#### Outcome 2: performance and product evidence.

Evidence is required which demonstrates that candidates have achieved the Outcome to the standards specified in the Performance Criteria.

Practical evidence should be produced, under supervised open-book conditions, which meets the requirements of a given brief.

Evidence will include

- ◆ the production of four stencils appropriate to the halftone technique and to industry standard
- ◆ the use of screen printing equipment and materials including paper, ink and chemicals in a safe and effective manner at all times
- ◆ the production of ten quality four colour halftone prints which meet the requirements of a given brief

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

**Unit title:** Screen Printing: Four Colour Halftone Process (SCQF level 6)

**Outcome 3:** Written/oral evidence.

Written/oral or recorded evidence is required which demonstrates that candidates have achieved Outcome 3 to the standards specified in the Outcome and Performance Criteria. The evidence for this Outcome must be obtained under open-book conditions. The assessor must be satisfied that the evidence submitted is the candidate's own work.

Written and/or oral and product evidence is required to demonstrate that the candidate understands and can identify what constitutes the four colour halftone screen printing process required to meet the quality requirements of a given brief:

- ◆ identification of print quality parameters, including: ink density, flooding, pressure, ink drying, image alignment, correct ink mix
- ◆ a comparison of end product against quality parameters which includes candidate review of own print process according to the given brief
- ◆ presentation of findings in a concise, accurate and logical manner

## National Unit specification: support notes

**Unit title:** Screen Printing: Four Colour Halftone Process (SCQF level 6)

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 written as a mandatory Unit of the National Certificate in Screen Printing at SCQF level 5. It can also be taken as a free-standing Unit. It aligns to the following National Occupational Standards from Proskills:

- ◆ Comply with Health and Safety in the Workplace (021)
- ◆ Improve your performance at work (022)
- ◆ Ensure your own actions reduce risks to Health and Safety in the Workplace (031)
- ◆ Improve individual and organisational performance (032)
- ◆ Contribute to maintaining equipment in working order (003)
- ◆ Prepare equipment and machines for screen printing (239)
- ◆ Operate screen printing machines (204)
- ◆ Control screen printing machines (231)

In this Unit candidates will select and prepare images and prepare stencils suitable for four colour halftone screen printing.

They will learn how to produce images, colour separate images, gain an understanding of screen printing and learn to follow the steps which are involved in producing a good quality stencil ready for print.

Candidates should be thoroughly inducted to the safe and effective use of screen printing equipment and materials used in the production of four colour halftone prints and adhere to current Health and Safety legislation at all times.

Candidates will use screen printing equipment, trichromatic inks and correctly apply ink onto substrate, resulting in the production of four colour.

Candidates will review and comment on the quality of their finished prints.

If this Unit is being delivered as part of a programme of screen printing based Units, then it is recommended that centres consider an integrated delivery approach with other Units in the award.

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

**Unit title:** Screen Printing: Four Colour Halftone Process (SCQF level 6)

This Unit should prepare candidates for progression to HNC. The purpose of the Unit is to develop the candidate's skills in sourcing and printing four colour halftone images. The Unit should lead the candidate through the use of screen printing techniques resulting in final prints of required images. Traditional screen printing techniques will be used but there may be scope for experimental media and techniques, eg. different types of paper. The candidate will produce ten four colour halftone prints. There could be opportunities for the candidate to take responsibility for carrying out relevant screen printing under a non-directive supervision. The centre should observe all current health and safety legislation relating to the safe use of chemicals and materials at all times. The candidate must be made fully aware of health and safety requirements and must observe safe working practices at all times

### **Guidance on learning and teaching approaches for this Unit**

This Unit is designed to enable candidates to further develop their screen printing skills. The candidate will use the appropriate screen-printing techniques in order to produce ten final prints of a four colour halftone that meet the requirements of the Outcomes and Performance Criteria in the Unit.

The candidate could be given notes/explanation detailing the screen printing process, equipment and materials, safety regulations and safe working practices. All this information should be reinforced in class discussions and practical demonstrations by the teacher/ lecturer.

In the delivery of the Unit the teacher/ lecturer could show good examples of collated research and quality final prints. Resources for research, such as periodicals, books, and the internet, could be made available. Learning approaches should be activity based with the lecturer demonstrating methods of screen printing before the candidate works on their own ideas. Further demonstrations and practical exercises relevant to the screen printing area should be given incorporating preparation of screens, colour layer registration techniques, avoidance of moiré, safe use of tools and equipment and inks and paper. Candidates should be encouraged to keep records throughout the Unit to assist them when preparing their final review of the process. Working in small groups will feature in this Unit and is good for the candidates' confidence before attempting to work individually. In this Unit candidates must adhere to all relevant current health and safety guidelines at all times.

### **Guidance on approaches to assessment for this Unit**

A suitable instrument of assessment for this Unit would be a practical exercise(s), supplemented by written and/or oral exercises. Notebooks/worksheets may be produced to show candidates understanding of the screen printing process and suitable images in Outcome 1. The assessment process could also be recorded by the use of an observation checklist in Outcome 2. A written/oral review will be presented as the assessment for Outcome 3.

The teacher/lecturer must be satisfied that the evidence submitted is the work of the individual candidates. Although group work may be used as a learning and teaching approach, any work that contributes to a candidate's assessment evidence must be carried out on an individual basis to ensure authenticity.

## National Unit specification: support notes (cont)

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### Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

### Opportunities for developing Core Skills

Candidates may have opportunities to develop aspects of the Core Skills of:

- ◆ *Communication*: through teacher/lecturer led group discussions on an ongoing basis
- ◆ *Working with Others*: by working together in collective workshop activities
- ◆ *Problem Solving*: through participation in the creative process which demands critical thinking and planning for the development of ideas and concepts
- ◆ *Information and Communication Technology (ICT)*: through use of the internet for research purposes, reports or relevant software packs

### Disabled candidates and/or those with additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements)



## History of changes to Unit

Version	Description of change	Date

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