SQA Advanced Unit specification: general information

Unit title: Digital Imaging

Unit code: HT5G 47

Superclass:	CE
Publication date:	August 2017
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Version:	01

Unit purpose

This Unit is designed to embrace the importance of digital and computer technology within the design process. It will enable the candidate to explore digital imaging, gain basic technical knowledge of digital imaging software (vector and bitmap), be aware of the importance of file types and file management and be able to use the relevant applications to produce a product to a given brief/s.

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

1   Create digital imagery to given brief/s.
2   Demonstrate an understanding of managing files appropriate to the brief/s.

Recommended prior knowledge and skills

Access to this Unit is at is at the discretion of the centre, but candidates should be able to competently operate the basic functions of a computer. An awareness of how to operate design software applications would be an asset.

Credit points and level

1 SQA 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 National 1 to Doctorates.

Core Skills

There are opportunities to develop the Core Skills of Problem Solving and Information and Communication Technology at SCQF level 6 in this Unit, although there is no automatic certification of Core Skills or Core Skills components. Further details are provided in the support notes.

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

Outcome 1 should be assessed in relation to the brief/s devised by the tutor delivering the Unit. The Unit could be delivered and assessed through the use of more than one design brief. Candidates should be encouraged to fully explore and utilise digital imaging software in order to create effective imagery. Outcome 2 focuses on the technical aspects that are integral to the successful application of the digital imagery.

This Unit will be assessed by means of:

♦ Creation of digital imagery for brief/s.
♦ Finished creative solutions, which place the imagery from Outcome 1 in an appropriate context.
♦ Submission of, or access to, storage devices which demonstrate that the digital imagery has been saved appropriately for its purpose.
♦ Written/oral/online questioning to ascertain candidates' knowledge of vector and bitmap imagery, and understanding of file formats, colour and file management. This could be used holistically to ascertain the knowledge required of Outcomes 1 and 2.

SQA Advanced Unit specification: statement of standards

Unit title: Digital Imaging

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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

Create digital imagery to given brief/s

Knowledge and/or Skills

♦ Use and operate appropriate software
♦ Vector images
♦ Bitmap images
♦ Input devices
♦ Output options

Evidence Requirements

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

♦ create a portfolio of digital images
♦ manipulate the digital images in a manner appropriate to the brief/s
♦ demonstrate, by an appropriate response, the advantages and disadvantages of vector and bitmapped based images
♦ produce evidence which shows an understanding that appropriate software is fit for the task
♦ effectively use input devices in order to create digital imagery
♦ identify appropriate output options for the given task

SQA Advanced Unit Specification

Assessment Guidelines

Candidates should work to a given brief/s that leads to the use of the appropriate Knowledge and/or Skills. Candidates should be encouraged to be creative and innovative in producing their imagery while giving full consideration to the brief/s. An understanding of the knowledge and skills should be evidenced by a practical demonstration of the candidate's ability to complete the given task. This should be achieved by the use of a checklist and a series of assignments.

Outcome 2

Demonstrate an understanding of managing files appropriate to the brief/s

Knowledge and/or Skills

♦   File format
♦   File resolution
♦   Colour modes
♦   File management
♦   Digital storage devices

Evidence Requirements

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

♦   select the appropriate file formats
♦   select the appropriate file resolution
♦   select the appropriate colour mode
♦   save digital imagery in appropriate format
♦   save files using suitable naming conventions and filing structure

Assessment Guidelines

Files saved at suitable format, resolution, colour mode and size to an appropriate storage device with suitable directory structures relevant to the purpose of the brief/s. Candidates' knowledge of file formats, colour mode and file management should be evidenced by both practical demonstration and a series of assignments.

SQA Advanced Unit specification: support notes

Unit title: Digital Imaging

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

The purpose of this Unit is to enable candidates to acquire software skills to effectively undertake creative projects and to work with digital imaging software applications. To understand the appropriate use of bitmap and vector file format, the candidates should work to project brief/s.

Guidance on the delivery and assessment of this Unit

This Unit should be presented where there is opportunity to create a portfolio of digital images to re-enforce and practice the skills acquired. In order to test the candidate's knowledge of vector and bitmapped images they should undertake a series of practical assignments which have been prepared by the tutor delivering the Unit.

Candidates should demonstrate the appropriateness of particular file formats in relation to a particular task.

Brief/s can either be set as four individual projects or holistically as part of an overall project.

All assessment should be conducted in conditions where arrangements have been put in place to ensure the authenticity of the candidate's work.

Opportunities for developing Core Skills

All elements of the Core Skill of Problem Solving (Planning and Organising, Critical Thinking, and Reviewing and Evaluating) will be fully developed and enhanced in the Unit. Candidates undertake a complex practical task, where identifying and assessing the relevance of all factors and identifying and maximising all available resources in order to pre-empt potential difficulties will involve a high level of critical thinking. Designing effective strategies which allow ongoing opportunities for review and modification will reflect and apply problem solving skills. Although a checklist approach to Problem Solving is not particularly useful for the level of skill needed, candidates will benefit from support materials and/or personal interviews with the assessor to reinforce analytical evaluative approaches to overall achievement in order to inform any future activities and further development. Candidates need to produce and present materials to a standard which would be acceptable in industry and acquire software skills to effectively undertake creative projects and to work with digital imaging software applications. Working to project briefs, they must understand the appropriate use of bitmap and vector file format. Some formative opportunities to create materials and designs using models with appropriate use of a range of presentation styles may be a useful way to maximise skills and the effectiveness and impact of materials created.

Open learning

This Unit is suited to open learning as evidence will be delivered digitally. Authenticity and sufficiency of candidate's evidence should be ensured and oral or online multiple questioning is appropriate.

For further information and advice please refer to the SQA document *Assessment and Quality Assurance for Open and Distance Learning* which is available on SQA's website: www.sqa.org.uk.

Equality and inclusion

This unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

History of changes to Unit

Version	Description of change	Date

General information for candidates

Unit title: Digital Imaging

This Unit will enable you to work with digital images effectively. It is designed to give you the skills to operate the appropriate software creatively, use input and output devices, save files in suitable formats and output your work in the manner required to meet a brief.

Overall you will be expected to use the knowledge and skills from the Unit to enable you to produce creative digital images fit for purpose and gain a competency from which you can continue to develop your abilities and knowledge.

On the completion of this Unit you will be able to:

1   Create digital imagery to given brief/s.
2   Demonstrate an understanding of managing files appropriate to the given brief/s.

In Outcome 1 you will create a portfolio of digital images. This could be through using vector and/or bitmapped software applications. You will also gain an understanding of colour modes, file sizes, and image resolution appropriate to different constraints. You will effectively use appropriate input devices to create digital imagery and identify appropriate output options for the given task. You will demonstrate an understanding of the advantages and disadvantages of vector and bitmapped based images.

In Outcome 2 you will be required to select the appropriate file format, file resolution and colour modes that are required of the project brief/s that you have been set. You will also be required to save your digital imagery in an appropriate file format/s using suitable naming conventions and filing constructions. You will submit your work on an appropriate storage device which demonstrates that files have been saved in a suitable format, resolution, colour mode and size.

You will be expected to complete a series of practical activities to demonstrate your understanding of the given knowledge and skills.