Higher National Unit Specification

General information for centres

Unit title: Graphics for Creative Multimedia Design

Unit code: DE2W 34

Unit purpose: This Unit is designed to provide candidates with the knowledge and skills necessary to create, acquire, manipulate and output Graphic elements within a multimedia context. The Unit should be delivered as part of a cohesive course, although it can be delivered on its own.

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

1.   Describe practical and aesthetic factors in the use of colour.
2.   Describe practical and aesthetic factors in the use of type forms.
3.   Create bitmap graphic files.
4.   Create vector graphic files.

Credit value: 2 HN Credits at SCQF level 7: (16 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 will be at the discretion of the Centre. However, it is recommended that candidates should have a basic knowledge of Graphic Design theory and a familiarity with computers and software packages. This may be evidenced by the possession of relevant National Units, HN Units or experience.

Core skills: There may be opportunities to gather evidence towards core skills 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. The most appropriate approach to delivery is one that requires candidates to integrate all knowledge and/or skills for the Unit to create a design solution to a given brief. The assessor should act as the client for the finished design and the candidate should respond accordingly.

General information for centres (cont)

Assessment: This Unit will be assessed by means of

- Written evidence of planning for design solutions
- A finished design solution containing elements of Outcomes 1, 2, 3 and 4
- Written evidence of evaluations.

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

Describe practical and aesthetic factors in the use of colour

Knowledge and/or skills

- Colour wheel
- Colour theory
- Use of colour in design
- Colour association
- Colour perception

Evidence requirements

Candidates will need evidence to demonstrate their knowledge and/or skills by showing that they can in a report of approximately 500 words:

- Produce a written evaluation of 3 pre-existing designs covering all knowledge and/or skills elements
- Produce a written evaluation of 2 screen based designs covering all knowledge and/or skills elements.

Candidates must also produce:

- Two screen based designs within the parameters of a given brief

Assessment guidelines

Candidates may use the evaluation process of pre-existing and produced material to describe the practical and aesthetic factors in the use of colour for screen based designs. Pre-existing materials may come from a variety of sources such as books, magazines, CD ROMs or web pages. It is suggested that candidates work to a simple given design brief that leads to the use of all the knowledge and skills. The design brief may also be broad enough to include the knowledge and/or skills elements of Outcome 2.

Higher National Unit specification: statement of standards (cont)

Unit title: Graphics for Creative Multimedia Design

Outcome 2

Describe practical and aesthetic factors in the use of type forms

Knowledge and/or skills

- Font
- Style
- Colour
- Size
- Alignment
- Leading
- Kerning

Evidence requirements

Candidates will need evidence to demonstrate their knowledge and/or skills by showing that they can:

- produce a written evaluation of 3 type elements from within pre-existing print or screen based materials covering all knowledge and/or skills elements
- produce 2 screen based type elements within the parameters of a given brief

Assessment guidelines

Candidates may use the evaluation process of pre-existing and produced material to describe the practical and aesthetic factors in the use of type forms for screen based designs. Pre-existing or screen based materials may come from a variety of sources such as books, magazines, CD ROMs or web pages. All elements within the knowledge and/or skills should be included in each evaluation. It is suggested that candidates work to a simple given design brief that leads to the use of all the knowledge and skills elements. The design brief may also be broad enough to include the knowledge and/or skills of Outcome 1.

Higher National Unit specification: statement of standards (cont)

Unit title: Graphics for Creative Multimedia Design

Outcome 3

Create Bitmap Graphics

Knowledge and/or skills

- Plan a digital photographic session
- Capture still images using a digital camera
- Plan a digital scanning session
- Capture still images using digital scanning devices
- Plan the use of bitmap editing tools
- Use a range of bitmap editing tools on still images

Evidence requirements

Candidates will need evidence to demonstrate their knowledge and/or skills by showing that they can:

- Produce a written plan for a digital photographic session to a given brief covering at least:
  - Zoom settings (optical and/or digital)
  - Aperture settings
  - Depth of field
  - Photograph composition
- Produce a written justification of the choices made
- Capture 2 still images using a digital camera
- Review any changes to the plan, made during the shoot

- Produce a written plan for a digital photographic session to a given brief covering at least:
  - Resolution
  - Colour depth
  - Brightness
  - Contrast
  - Scan area
- Produce a written justification of the choices made
- Capture 2 still images using scanning devices which are correctly acquired
- Review any changes to the plan, made during the scanning session

- Produce a written plan for and edit 4 still images using at least 5 of the following common editing tools:
  - Brush
  - Clone
  - Fill
  - Filter
  - Layers

Higher National Unit specification: statement of standards (cont)

Unit title: Graphics for Creative Multimedia Design

- Opacity
- Selection
- Text

- Save 4 still images in an appropriate format for the given brief

The capture of images using a digital camera and scanning device must be recorded by the use of suitable assessor checklists.

Assessment guidelines

It is suggested that candidates work to a given design brief that leads to the use of all knowledge and/or skills. The brief may involve candidates in capturing images based around a subject or theme.

In planning camera or scanner capture candidates should be encouraged to plan in detail for each image. Appropriate planning should help candidates to develop the thought processes needed for independent and intuitive work. In editing still images, candidates may apply common editing tools in addition to those stipulated in the evidence requirements. It is not any specific editing tools that are being assessed, more the process of editing. The appropriate file formats to be considered may be Web, CD ROM, DVD, Interactive TV etc.

Higher National Unit specification: statement of standards (cont)

Unit title: Graphics for Creative Multimedia Design

Outcome 4

Create vector graphic files

Knowledge and/or skills

- Add and manipulate vector shapes
- Add and manipulate vector lines
- Use a range of fills
- Add text to a vector image
- How to trace a bitmap image
- How vector graphics are produced
- How vector and bitmap graphics information is stored

Evidence requirements

Candidates will need evidence to demonstrate their knowledge and/or skills by showing that they can:

- Produce vector graphic versions of 3 given designs
- Manipulate vector graphics covering at least:
  - Fill (solid, gradient, radial)
  - Opacity
  - Layers
- Incorporate a traced bitmap image into each vector graphic
- Save 3 vector graphics in the format appropriate to the given brief
- Produce a short report of approximately 250 words detailing how vector and bitmap graphics information is stored.

Assessment guidelines

It is suggested that in creating vector graphics candidates work to a given design brief that leads to the use of all the knowledge and/or skills. The design brief could be for a company logo or parts of an application interface. A variety of delivery systems such as Web, CD ROM, DVD, Interactive TV etc may be considered.

Administrative Information

Unit code: DE2W 34

Unit title: Graphics for Creative Multimedia Design

Superclass category: CE

Date of publication: November 2003

Source: SQA

Higher National Unit specification: support notes

Unit title: Graphics for Creative Multimedia Design

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

This Unit is designed to introduce candidates to graphics for Creative Multimedia Design. Useful background information can be found in a variety of textbooks which are widely available. Likewise, as well as using software manuals, centres offering this Unit may find additional books useful. There may be helpful tutorials from the World Wide Web although these should be carefully worked through prior to recommending to candidates to ensure their accuracy and that vital elements have not been omitted. Candidates may find it difficult to gauge the complexity of their designs and should rely on the assessor's judgement [in the capacity of "client"] in deciding what to include in their finished work, so that this is achievable within the time allowed.

It is suggested that candidates use software, editing tools, filters, etc, in a documented, thought out constructive fashion that relates to the design brief. The ability to use software, etc, should not be confused with the realisation of a design brief which is at the heart of this Unit. Similarly digital photography and scanning should be thought out and documented in relation to the design brief.

The theory of colour should be taught to a level where candidates can use the information to fully realise a design brief. Focusing on the use of colour in design, colour associations, colour coding and colour perceptions in relation to moods, cultures, fashions, eras, etc.

Guidance on the delivery and assessment of this Unit

Although candidates should have to become familiar with a range of software packages during the delivery of the Unit, emphasis should not be placed on software specific skills but rather on the specific graphical knowledge and skills required within the Unit. This will ensure that revisions of software does not impact on the underlying knowledge and/or skills acquired through the achievement of the Unit.

It is recommended that Outcomes 1 and 2 be taught first as these provide the knowledge which should be utilised in Outcomes 3 and 4.

Candidates who have not studied Graphics before should be taught to a level whereby they can independently create design solutions using a thorough knowledge of colour theory and fonts. Candidates who have studied Graphic Design at introductory levels should be enabled to develop and stretch their knowledge and/or skills.

Higher National Unit specification: support notes (cont)

Unit title: Graphics for Creative Multimedia Design

There are opportunities to integrate Outcomes in the Unit, particularly Outcomes 1 and 2, then 3 and 4. It should also be possible to integrate Outcomes in this Unit with those of other Units in the HN Multimedia awards and this approach is recommended to centres as a means of creating more holistic approaches to multimedia generation and to reducing the assessment burden on candidates.

Open learning

This Unit could be delivered by open learning provided suitable online materials were developed. There would also have to be a well defined brief which took into account any factors specific to open learning.

If this Unit is delivered by open or distance learning methods, additional planning and resources may be requires for candidate support, assessment and quality assurance. A combination of new and traditional authentication tools may have to be devised for assessment and re-assessment purposes. For further information and advice, please see *Assessment and Quality Assurance for Open and Distance Learning* (SQA, February 2001 - publication code A1030)

Special needs

This Unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering special alternative Outcomes for Units. For information on these, please refer to the SQA document *Guidance on Special Assessment Arrangements* (SQA, 2001).

General information for candidates

Unit title: Graphics for Creative Multimedia Design

This Unit is designed to enable you to evaluate graphic designs for multimedia applications in terms of colour and typography as well as to create and manipulate bitmap and vector graphics. It is a practically based Unit but some necessary theory has to be absorbed. The key to creating effective graphics for a multimedia project such as a Web page is not in the random 'try it and see' approach but in a set of thought processes that brings to fruition the ideas you feel work best for a client. In working to a given brief you will use the knowledge and skills you have acquired in a practical way to produce design solutions. These design solutions should be included as part of a multimedia presentation or project.

In this Unit you should be encouraged to discover useful background information on graphics and graphic design in relation to multimedia applications from a variety of text books, software manuals, on line tutorials and the World Wide Web. At first, you may find it difficult to gauge the complexity of your designs and you should rely on your lecturer's judgement (with the lecturer acting in the capacity of 'the client') in deciding what to include in your finished work, so that this is achievable within the time allowed for the Unit.

You should learn about graphics software, editing tools, filters, etc, as well as how to document your work in relation to a given design brief. You are generally not being assessed on your ability to use graphics software as such, rather, you are being assessed on your ability to realise the features of the given design brief. You should learn about the theory of colour and how to focus on the use of colour in design, colour associations, colour coding and colour perceptions in relation to moods, cultures, fashions, eras, etc.

In Outcome 1 you will be required to produce 2 screen-based designs to a given brief that demonstrates your use and understanding of the practical and aesthetic factors involved in the use of colour. You will also be asked to produce a written evaluation of the 2 screen based designs you have produced and of 3 pre-existing designs.

In Outcome 2 you will be required to produce 2 screen-based type elements to a given design brief that demonstrates your use and understanding of the practical and aesthetic factors involved in the use of type forms. You will also be asked to produce a written evaluation of 3 pre-existing type elements.

In Outcome 3 you will be required to produce written plans for conducting a digital photographic session and a digital scanning session to a given brief, which includes justifications of the choices you made. You will then capture a number of still images using a digital camera and scanner and edit and save the images in appropriate bitmap file formats for storage on CD ROM, DVD, the Web and Interactive TV.

In Outcome 4 you will be required to produce vector graphic versions of 3 given designs, to manipulate, trace and save the images in appropriate vector file formats for storage on appropriate media. You will also produce a short report detailing how vector and bitmap graphics information is stored.