

## National Unit Specification: general information

**UNIT**            Computing: Interactive Multimedia for Website Development  
(Intermediate 2)

**CODE**           F180 11

### SUMMARY

This Unit introduces candidates to the design and development of animation and interactive multimedia applications, including digital narratives, for use on the World Wide Web.

This Unit is suitable for candidates who have some experience of using computer application software to produce basic web pages and digital images and who wish to develop their knowledge and skills to include animation and interactivity.

Candidates will be introduced to planning techniques for animation, common file formats for animation, different methods for producing animation, film techniques, transition effects, testing and evaluation methods.

### OUTCOMES

- 1 Plan an animation for inclusion on a website.
- 2 Create an animation and incorporate it in a website.
- 3 Plan and design a digital narrative for inclusion on a website.
- 4 Create a digital narrative for inclusion on a website.
- 5 Test and evaluate a digital narrative.

### 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:

F181 11            Computing: Website Design Fundamentals (Intermediate 2)

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#### Administrative Information

**Superclass:**        CB

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## National Unit Specification: general information (cont)

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### CREDIT VALUE

1 credit at Intermediate 2 (6 SCQF credit points at SCQF level 5\*)

*\*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

Achievement of this Unit gives automatic certification of the following Core Skill:

Complete Core Skill/s            Problem Solving at SCQF level 4

Core Skills component            None

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

### **UNIT        Computing: Interactive Multimedia for Website Development (Intermediate 2)**

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 the Scottish Qualifications Authority.

#### **OUTCOME 1**

Plan an animation for inclusion on a website.

##### **Performance Criteria**

- (a) A storyboard for a simple animation is produced.
- (b) File formats for web-based animation are correctly described.
- (c) File formats for web-based animation are correctly compared.
- (d) A suitable file format for web-based animation is selected.

#### **OUTCOME 2**

Create an animation and incorporate it in a website.

##### **Performance Criteria**

- (a) A simple animation with both shape tweening and motion tweening is created.
- (b) A simple animation which includes synchronised sound is created.
- (c) A simple animation which includes interactivity in the form of play and stop controls is created.
- (d) A simple animation is incorporated in a website.

#### **OUTCOME 3**

Plan and design a digital narrative for inclusion on a website.

##### **Performance Criteria**

- (a) The purpose and audience of the digital narrative is identified.
- (b) A script for a short digital narrative, which is appropriate to both the purpose and audience, is produced.
- (c) A storyboard of the digital narrative, which is appropriate to both the purpose and audience, is produced.

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

### UNIT Computing: Interactive Multimedia for Website Development (Intermediate 2)

#### OUTCOME 4

Create a digital narrative for inclusion on a website.

#### Performance Criteria

- (a) Audio, textual and graphical information is correctly incorporated into the digital narrative.
- (b) Filmmaking technique is correctly incorporated into the digital narrative.
- (c) A transition effect is correctly incorporated into the digital narrative.
- (d) Interactivity in the form of play and stop controls is correctly incorporated into the digital narrative.
- (e) The digital narrative is appropriately included in a website.

#### OUTCOME 5

Test and evaluate a digital narrative.

#### Performance Criteria

- (a) A test plan is developed for the digital narrative.
- (b) The digital narrative is tested for functional errors.
- (c) The digital narrative is correctly evaluated for usability.
- (d) The digital narrative is appropriately revised in line with testing and evaluation results.

### EVIDENCE REQUIREMENTS FOR THIS UNIT

Evidence must be produced to demonstrate that **all** Outcomes and Performance Criteria have been achieved.

Evidence may be produced in open-book conditions at appropriate points throughout the Unit rather than on one assessment occasion; however assessors must assure themselves of the authenticity of each candidate's work.

For Outcomes 1 and 3, written and/or recorded oral and diagrammatic evidence must be produced which includes:

- ◆ A storyboard for an animation that includes shape tweening and motion tweening, synchronised sound, and play and stop controls.
- ◆ A short report which:
  - describes and compares two file formats suitable for web-based animation, and
  - recommends a suitable format for an animation for a specific purpose.
- ◆ A description of the audience and purpose of the digital narrative.
- ◆ A script of at least 30 seconds duration for the digital narrative.
- ◆ A storyboard for the digital narrative which links to the purpose of the digital narrative and meets the needs of the audience.

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

### UNIT            Computing: Interactive Multimedia for Website Development (Intermediate 2)

For Outcomes 2 and 4, candidates must produce the following evidence:

- ◆ Product evidence (electronic file) consisting of an animation that includes:
  - shape tweening and motion tweening
  - synchronised sound and interactivity in the form of play and stop controls.
  
- ◆ Performance evidence supported by an assessor observation checklist, indicating that the animation is operational and available on a website.
  
- ◆ Product evidence consisting of a digital narrative that includes:
  - Textual information
  - Audio information
  - Graphical information, which includes one of the following: still graphics, video or animation.
  - One filmmaking technique (eg a film camera-like effect such as panning or zooming etc)
  - One transition effect (eg a film-like transition effect such as fade, blur, dissolve etc)
  - Interactivity in the form of play and stop controls.
  
- ◆ Performance evidence supported by an assessor observation checklist, indicating that the digital narrative is operational and available on a website.

For Outcome 5, written and/or recorded oral evidence of testing and evaluation must be produced which covers:

- ◆ A test plan and test results.
- ◆ Re-test results.
- ◆ Usability evaluation results.
- ◆ Changes made due to testing and evaluation results.

The Assessment Support Pack for this Unit provides sample assessment material. Centres wishing to develop their own assessments should refer to the Assessment Support Pack to ensure a comparable standard.

## **National Unit Specification: support notes**

### **UNIT        Computing: Interactive Multimedia for Website Development (Intermediate 2)**

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**

##### **Outcome 1**

This Outcome should focus on the pre-production stage of the animation process. Storyboarding should be introduced as a key tool in the design and planning of animation. Common file formats for web-based animation, such as Flash (swf), Graphic Interchange Format (gif) or Director (dcr), should be covered and compared. Suitable criteria for comparison would be file size, frame rate, compatibility with web browsers, or if a plug-in is required to view the animation, the ability to include synchronised sound, the ability to add interactivity, the ability to stream files across the internet.

##### **Outcome 2**

Outcome 2 should cover the production stage of the computer-based animation process. The features and tools of a computer-based animation application should be described and demonstrated, including drawing tools, timeline, tweening methods, motion guides and keyframes. Scripting facilities should be demonstrated to allow the inclusion of play and stop controls, and the incorporation of synchronised sound should also be covered.

##### **Outcome 3**

Outcome 3 should cover the definition of a digital narrative, and examples should be available for inspection by candidates. A digital narrative is storytelling using digital media such as video, animation, multimedia or a combination of some or all of these things. Digital narratives communicate an idea or a message. That idea or message may be for a variety of purposes, such as entertainment, education, advertising, public information, etc. The different uses for digital narratives should be investigated and candidates should be given the opportunity to view and evaluate a range of existing digital narratives such as adverts, cartoons, educational materials and videos.

##### **Examples**

A digital narrative may be constructed to promote a town or city. The narrative would open with a title displayed across a photograph of the town. The opening sequence zooms out to display a wide view of the town. A series of photographs is then shown in a slideshow with a narration describing some of the benefits of living in the town. The slideshow would feature transition effects between each photograph.

A digital narrative could be used to review a product. The narrative opens with a title displaying the name of the product, for example a mobile telephone. A series of photographs are shown of the telephone from different angles while a narrator describes and reviews the product. Finally a short video clip shows a person using the device and summarising its good and bad points.

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

### **UNIT**      Computing: Interactive Multimedia for Website Development (Intermediate 2)

#### **Outcome 4**

This Outcome should cover the creation of digital narratives using contemporary video editing or multimedia authoring tools. Topics should include the use of film techniques and transition effects in storytelling. Filmmaking techniques include camera movements such as pan, zoom and tilt, and transition effects include fades, wipes and other visual effects that link parts of a story together.

#### **Outcome 5**

This Outcome should focus on the techniques used in testing and evaluating an interactive digital narrative, including functional testing and usability evaluation. Usability evaluation should include the evaluation for use by specific audiences, such as children and persons with a physical disability.

### **GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT**

Candidates will require individual access to appropriate computer hardware and software throughout this Unit, and it would be advantageous to have access to a shared Web or intranet based server.

There may be opportunities to integrate assessment with other Units, for example Units covering graphics, photography, web design or animation.

### **OPPORTUNITIES FOR CORE SKILL DEVELOPMENT**

In this Unit candidates will use computer applications software to create animations and digital narratives and include them in a web site. These activities provide good opportunities to develop the Core Skill of IT. In addition candidates will plan a simple animation and a digital narrative which provides good opportunities to develop the Core Skill component of Planning and Organising.

### **GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT**

#### **Outcomes 1–5**

An integrated and holistic approach to assessment is encouraged. Candidates may, for example, construct a single website to contain both animation and a digital narrative. It may also be possible for candidates to construct an animation for Outcome 2 that may be used as a media asset in the construction of a digital narrative for Outcome 4.

Assets and websites produced by the candidate for other Units may be used in the production of evidence for this Unit. An integrated assessment approach across several Units is encouraged particularly where there may be common themes such as graphics, photography, web design or animation.

## **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. 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](http://www.sqa.org.uk)).