



National Unit specification: general information

Unit title: Computer Games: 2D Animation Skills (SCQF level 6)

Unit code: H2CE 12

Superclass: CE

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Summary

The purpose of this Unit is to provide candidates with the knowledge and skills to produce a short 2D animated sequence. Candidates will gain an understanding of the principles of 2D animation, plan a 2D animation and will develop their practical skills by producing an animated sequence.

This Unit is suitable for candidates with no previous experience of 2D animation or those who wish to develop skills in graphic design and/or 2D animation.

Outcomes

- 1 Identify and describe the twelve basic principles of animation.
- 2 Plan a 2D animated sequence.
- 3 Produce a 2D animated sequence.
- 4 Evaluate a 2D animated sequence.

Recommended entry

Entry is at the discretion of the centre, although basic computer skills would be recommended.

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.*

General information (cont)

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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 components in this Unit.

National Unit specification: statement of standards

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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

Identify and describe the twelve basic principles of animation.

Performance Criteria

- (a) Carry out research to identify the twelve basic principles of animation.
- (b) Provide a detailed description of each of the twelve basic principles of animation.
- (c) Produce annotated examples of each of the twelve basic principles from existing animations.

Outcome 2

Plan a 2D animated sequence.

Performance Criteria

- (a) Produce drawings of the proposed animation assets from three different viewpoints.
- (b) Identify the key frames in the sequence.
- (c) Produce storyboards for the key frames of the planned animated sequence.

Outcome 3

Produce a 2D animated sequence.

Performance Criteria

- (a) Produce a 2D animated sequence in accordance with plans
- (b) Render the animation
- (c) Save the animation in an appropriate file format.

Outcome 4

Evaluate a 2D animated sequence.

Performance Criteria

- (a) Justify the effectiveness of the sequence in relation to produced plans.
- (b) Identify areas of improvement.
- (c) Support the evaluation with images or screenshots.

National Unit specification: statement of standards (cont)

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Evidence Requirements for this Unit

The following written/oral/product evidence is required to demonstrate that candidates have achieved all of the Outcomes and Performance Criteria:

- ◆ Descriptions of each of the following twelve basic principles of animation:
 - Squash and stretch
 - Anticipation
 - Staging
 - Straight-ahead action and pose to pose
 - Follow through and overlapping action
 - Slow in and slow out
 - Arcs
 - Secondary action
 - Timing
 - Exaggeration
 - Solid drawing
 - Appeal
- ◆ Annotated examples of existing animations featuring each of the twelve basic principles
- ◆ Three developmental drawings for each of the main assets of the planned sequence showing front, side and perspective viewpoints
- ◆ Storyboards for the key frames of the sequence
- ◆ A 2D animated sequence in accordance with produced plans, which:
 - incorporates at least two of the twelve basic principles,
 - is at least 10 seconds long
 - is rendered
 - is in an appropriate file format
- ◆ An evaluation (500 words or equivalent) supported by images and/or screenshots

National Unit specification: support notes

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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

In this Unit, candidates are required to plan and produce a 2D animation lasting at least 10 seconds. The Unit is designed so that the complexity of the animation is flexible to allow candidates with varying degrees of experience to produce an animated sequence. An example would be a candidate with no previous experience producing a bouncing ball incorporating squash and stretch and timing, whilst a candidate with prior knowledge of 2D animation could produce a far more complex animated piece.

Guidance on learning and teaching approaches for this Unit

Practical activities should be lecturer-led in that techniques and processes should be clearly explained and demonstrated to candidates and understood prior to undertaking the practical tasks.

During this Unit, candidates will learn about planning an animation. This will include drawing techniques for the proposed animation assets, eg characters, inanimate objects, etc which may include shaded renderings, drawings that explore form and texture, and perspective drawings. The drawings could be hand-drawn or computer generated, black and white or in full colour.

Candidates will also learn about the storyboarding process for animation; identifying the key frames in the animation, and portraying these in storyboard format. Again, the storyboards can be hand-drawn or computer generated, black and white or in full colour. A simple 10 second animation may only require six frames, whereas a longer, more complex piece would require more frames.

Candidates will also learn how to output an animation to an appropriate file format such as AVI, FLV, Mpeg, etc. and save to backing storage.

In summary, this Unit can be delivered to candidates with no prior knowledge of 2D planning and animation and these candidates will learn the basic skills required to successfully complete the Unit. However, candidates with prior knowledge, or candidates who demonstrate an aptitude with the software, have the opportunity to go beyond basic animation and produce a piece more complex in nature.

National Unit specification: support notes (cont)

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Guidance on approaches to assessment for this Unit

The following Instruments of assessment are suggested:

Outcome 1 — report and annotated research.

Outcome 2 — portfolio containing developmental plans and storyboards.

Outcome 3 — digital portfolio.

Outcome 4 — report supported by images or screenshots.

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

There is no automatic certification of Core Skills or Core Skill components in this Unit. However, *Problem Solving* (Outcome 2 — Planning), Numeracy (Outcome 3 — frame-rates and timing) and *Information and Communication Technology (ICT)* (Outcomes 2 and 3) contribute to the development of Core Skills.

This Unit maps to the following National Occupational Standards:

IM5 Design User Interfaces for Interactive Media Products

IM20 Design Electronic Games

IM23 Create Narrative Scripts for Interactive Media Products

IM24 Create 2D Animations for Interactive Media Products

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

History of changes to Unit

Version	Description of change	Date

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