



Higher National Unit specification

General information for centres

Unit title: 2D Animation

Unit code: F209 34

Unit purpose: This Unit is designed to enable candidates to understand traditional animation concepts and techniques applied to 2D animation on a computer screen. Candidates will have the opportunity to develop the skills to create the components for animation and create animation on screen. Candidates will have the opportunity to apply these techniques in the design and implementation of a 2D digital animation sequence.

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

- 1 Demonstrate an understanding of the principles of traditional animation within the context of a 2D digital animation environment.
- 2 Demonstrate the use of 2D animation software tools and techniques.
- 3 Demonstrate the use of 2D digital animation techniques.
- 4 Create a 2D digital animation sequence.

Credit points and level: 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 is at the discretion of the centre. However it would be beneficial if the candidates were proficient in computer use and saving files in a methodical way. This may be evidenced by the possession of relevant National Units or experience. Higher Art and Design and/or Craft Design and Technology would provide useful background knowledge but are not essential to success in the Unit.

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 Skill 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 the candidate to create a 2D digital animation that can be integrated with a showreel or a multimedia showcase of the candidate's overall achievement.

General information for centres

Assessment: Evidence is required that candidates have achieved all Outcomes. Candidates are encouraged to use the internet in any research etc, however, the evidence produced must be the candidate's own words. Assessors should assure themselves of the authenticity of candidate's evidence.

Written and/or oral recorded, performance and product evidence is required which demonstrates that the candidate has achieved the requirements of all of the Outcomes to show that the candidate has appropriate knowledge and understanding of the content of this Unit.

This Unit should be assessed by four assessments tasks detailed as follows:

- 1 Outcome 1 is closed-book and should take the form of an objective test where the candidate demonstrates an understanding of traditional and digital animation concepts and techniques.
- 2 Outcome 2 is open-book and should take the form of completion exercises where the candidate produces finished products using the drawing and painting facilities that are an in-built feature of 2D animation software packages.
- 3 Outcome 3 is open-book and should take the form of completion exercises where the candidate produces finished products using the various options for creating motion that are an in-built feature of 2D animation software packages.
- 4 Outcome 4 is open-book and should take the form of small-scale animation project where the candidate uses the Knowledge and Skills developed in Outcomes 1, 2 and 3 to produce a 15 second animation sequence from a given brief.

There is an opportunity to take a more holistic approach to assessment by integrating the graphics, sound and appropriate motion method(s) in Outcomes 2, 3 into Outcome 4.

Assessors should ensure themselves of the authenticity of the candidate's evidence.

The Assessment Exemplar Pack for this Unit provides sample assessment materials including assessor checklists, practical tasks and an instrument of assessment for the knowledge. Centres wishing to develop their own assessments should refer to the Assessment Exemplar Pack to ensure a comparable standard.

Higher National Unit specification: statement of standards

Unit title: 2D Animation

Unit code: F209 34

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

Demonstrate an understanding of the principles of traditional animation within the context of a 2D digital animation environment

Knowledge and/or Skills

- ◆ Squash and stretch
- ◆ Timeline
- ◆ Motion paths
- ◆ Anticipation
- ◆ Keyframes
- ◆ Tweening
- ◆ Layers
- ◆ Sound in animation

Evidence Requirements

Evidence for all Knowledge and Skills in this Outcome will be assessed using a representative sample of questions covering the Knowledge and Skills, however, this representative sample must cover each bullet point.

The assessment will be supervised, controlled and under closed-book conditions and should last no more than 1 hour. The instrument of assessment must provide opportunities for the Outcome to be fulfilled by means of sampling across the range of the content of Outcome 1. This assessment must change on each assessment occasion. Achievement can be decided by use of a 60% cut-off score.

Where re-assessment is required it should contain a different sample from the range of mandatory content.

Higher National Unit specification: statement of standards (cont)

Unit title: 2D Animation

Outcome 2

Demonstrate the use of 2D animation software tools and techniques

Knowledge and/or Skills

- ◆ Produce and modify vector graphics
- ◆ Using non-vector graphics
- ◆ Use 2D animation techniques
- ◆ Export files

Evidence Requirements

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

- ◆ produce and modify vector graphics using:
 - drawing tools (pen, pencil, line, oval, rectangle, eraser, zoom)
 - painting tools (fill, brush, paint bucket, ink bottle)
 - text tools
- ◆ using non-vector graphics
 - bitmap
 - animated GIF
 - converting to vector
- ◆ use 2D animation techniques
 - frames
 - keyframes
 - layers
 - scenes
- ◆ export files to different formats
 - png
 - tiff
 - jpeg
 - gif/animated gif

Centres should provide the candidates with a series of completion exercises. These exercises should explore all of the above. Candidates need to complete the exercises. To provide evidence of their understanding of the Knowledge and/or Skills by covering all the bullet points.

The candidate should be given the existing designs as well as a short brief for each. Each design must be different and between them cover all of the Evidence Requirements.

This assessment should be supervised and is open-book. Candidates should be supplied with a checklist of mandatory Evidence Requirements to be completed, signed and dated by the Assessor upon successful completion of the requirements.

Higher National Unit specification: statement of standards (cont)

Unit title: 2D Animation

Outcome 3

Demonstrate the use of 2D digital animation techniques

Knowledge and/or Skills

- ◆ Motion
- ◆ Sound
- ◆ Publishing

Evidence Requirements

A candidate's response will be judged to be satisfactory where the evidence provided shows the candidate is able to:

- ◆ produce an animation using:
 - shape tweening
 - motion tweening
 - frame-by-frame animation (eg user control using buttons)
 - an animation path
- ◆ source and add at least one appropriate sound file
- ◆ publish the animation in three different formats

Centres should provide the candidates with a series of completion exercises. These exercises should explore all of the Evidence Requirements. Candidates need to complete the exercises to demonstrate their Knowledge and/or Skills by covering all the Evidence Requirement bullet points. There is no requirement for candidates to create the sound component. Candidates should be encouraged to source a sound file(s) from a suitable source whilst adhering to copyright law.

This assessment should be supervised and presented under open-book conditions. Assessors must assure themselves of the authenticity of each candidate's submission.

Outcome 4

Create a 2D digital animation sequence

Knowledge and/or Skills

- ◆ Produce a storyboard from a given brief
- ◆ Create and combine images, graphics and sound using appropriate software
- ◆ Create an animated sequence
- ◆ Publish the animation

Higher National Unit specification: statement of standards (cont)

Unit title: 2D Animation

Evidence Requirements

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

- ◆ produce a description of the animated sequence
- ◆ produce a series of storyboards for an animated sequence
- ◆ produce a 15 second animation:
 - produce and modify at least three vector graphics
 - use at least one non-vector graphics
 - include at least five layers
 - include at least two scenes
 - apply frame-by-frame animation techniques
 - apply motion tweening techniques
 - apply shape tweening techniques
 - add and animate an object along an animation path
 - add at least one sound file
- ◆ save the final project in the format specified in the given brief

This assessment should be carried out under supervised, open-book conditions. Assessors must assure themselves of the authenticity of each candidate's submission.

Centres should provide candidates with a project brief which will allow candidates to demonstrate the techniques introduced in the previous Outcomes, candidates are required to plan and document their solution to the brief in storyboard format. The storyboard should include a sketch showing position and layout of the frame, frame number, timings, description and media elements incorporated.

Administrative Information

Unit code: F209 34
Unit title: 2D Animation
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Version	Description of change	Date
02	Incorrect SCQF level amended on page 1.	24/09/09

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Higher National Unit specification: support notes

Unit title: 2D Animation

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 develop candidate's Knowledge and Skills in using a software application to produce a 2-dimensional animation sequence.

Outcome 1 is designed to introduce the candidate to the knowledge and understanding of the various terms, concepts and techniques used in traditional animation as applied to 2D animation. Candidates would benefit from seeing practical examples of these techniques to aid their understanding.

The purpose of Outcome 2 is to introduce candidates to the drawing and painting facilities within a 2D animation package. To prepare candidates for the project in Outcome 4 they should have plenty of practice using a broad range of drawing, painting and text tools in the software program. Candidates should be introduced to using non-vector graphics within a vector graphics application. These are used within vector applications as animated gifs, as template files which can be traced using drawing tools or can be converted into vector formats. Candidates should understand the building blocks required to produce motion and should be familiar with the terms frame, keyframe, layer and scene. Using practical examples of these to reinforce learning would be advantageous.

Discussion should take place about appropriate file formats for exporting still vector graphics. Common export formats for still vector images are .jpeg, .tiff and .png. The advantage and disadvantages of these and for what delivery medium they are most suited to should be covered.

The purpose of Outcome 3 is to allow the candidate to use different methods and techniques of producing 2-dimensional motion on screen. Frame-byframe animation requires each frame in animation to be redrawn and altered slightly to produce the effect of movement, similar to a flip book. Tweening is a popular choice for animators due to ease of which it is created. Tweening requires only a start frame and an end frame. There are two types of tweening — motion and shape. Candidates should be aware of the differences between these and what type of objects can use these techniques. Motion or animation paths should also be explored. Outcome 3 also explores the use of sound in animation such as to assist usability eg a button click or to enhance an animation of banging noise when a door closes. Discussion on the types of audio file formats supported by the 2D application will be required. Candidates should have plenty of opportunity to practice 2-dimensional animation techniques and be competent with importing sound into an animation application.

Discussion should take place about appropriate file formats for exporting animated vector graphics. Common export formats for animated vector images are .swf, .gif, .mov. The advantages and disadvantages of these and for what delivery medium they are most suited to should be covered.

The purpose of Outcome 4 is to allow the candidate to apply the Knowledge and Skills developed in Outcomes 2 and 3 to produce a short animation sequence according to a given brief. Candidates will be required to storyboard their ideas and should have practice experience of planning and creating for animated sequences.

Higher National Unit specification: support notes (cont)

Unit title: 2D Animation

Guidance on the delivery and assessment of this Unit

This Unit is designed to develop candidate's knowledge and skills in creating 2D vector graphics using various drawing and painting tools whilst applying knowledge and skills of traditional animation principles. Candidates will then utilise techniques such as shape tweening, motion tweening, animation paths and frame-by frame animation to create motion on screen. Candidates will also learn how to insert sound into an animation. Finally, candidates will use these knowledge and skills techniques to produce a 15 second animation sequence.

The Outcomes should be taught in sequence, as each builds on the knowledge gained in the previous. Candidates should be encouraged to keep a log book of ideas or techniques that they find effective. Plenty of practical examples are advised to illustrate the various drawing principles and animation techniques covered. Candidates should be encouraged to keep a file of these for future reference.

Outcome 1 will be assessed under supervised closed-book conditions by series of questions covering all Evidence Requirements. The purpose of Outcome 1 is to give candidates a firm underlying knowledge of the principles of animation so they can apply these in Outcomes 2, 3 and 4.

Outcome 2 will be assessed under supervised open-book conditions by a series of practical completion exercises, where the candidate will be expected to demonstrate their ability to create vector graphics. The purpose of Outcome 2 is to stretch the drawing ability of the candidate, therefore, they should be given plenty of practical experience drawing with vector tools.

Outcome 3 will be assessed under supervised open-book conditions by a series of practical completion exercises, where the candidate will be expected to demonstrate their ability to animate vector graphics. Candidates will also be required to add a sound file into their animated images. Creating a sound file is not a requirement of this Unit, therefore direction on where to source files with regard to copyright would be appropriate. The purpose of Outcome 3 is to understand the use of and apply different animation techniques.

Outcome 4 will be assess under supervised open-book conditions. Candidates will plan for and produce a 15 second animated sequence incorporating elements covered in the previous Outcomes. Candidates are required to create a storyboard for an animated sequence in Outcome 4, therefore it would be good practice to introduce the storyboard format during Outcome 3 so that candidates become familiar with its purpose and layout.

It is recommended that this Unit be assessed using three separate assessments due to the building of the candidate's knowledge and skills throughout the delivery of the Unit. However, this is not a requirement and the Unit could be assessed using the deliverables form Outcomes 2 and 3 in Outcome 4. Where deliverables from previous Outcomes are not appropriate to the project brief, new ones must be created.

Opportunities for developing 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.

Higher National Unit specification: support notes

Unit title: 2D Animation

Open learning

This Unit is may be suitable to open learning as most of the evidence will be delivered digitally. For information on normal open learning arrangements, please refer to the SQA guide *Assessment and Quality Assurance for Open and Distance Learning (A1030)* which is available on the SQA's website (www.sqa.org.uk).

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).

General information for candidates

Unit title: 2D Animation

This Unit will enable you to understand the principles of traditional animation techniques, and apply these principles to create 2D animation on a computer screen. The Unit is designed to give you skills to use animation software effectively to create an animation sequence from a given brief.

There will be four assessments:

- ◆ Outcome 1 will assess your knowledge and understanding of the fundamental principles of animation as applied to 2-dimensional animation using a series of questions covering a range of Evidence Requirements.
- ◆ Outcome 2 will take the form of practical based exercises aimed at challenging your ability to use vector drawing and painting tools to create vector drawn images in a 2D animation application or in a vector drawing application exporting the image in a suitable file format.
- ◆ Outcome 3 will take the form of practical based exercises building on the previous Outcome to animate vector drawn images using various animation techniques and enhancing animation by importing and using sound appropriately. Animations will be published using formats appropriate for supporting moving images.
- ◆ Outcome 4 draws on the knowledge and skills learned in the previous Outcomes. In this Outcome you will plan for and create a 15 second animated sequence based on a project brief. Your finished animation will be published in a format specified by the project brief.

On completion of the Unit, you should be able to:

- 1 Demonstrate an understanding of the principles of traditional animation within the context of a 2D digital animation environment.
- 2 Demonstrate the use of 2D animation software tools and techniques.
- 3 Demonstrate the use of 2D digital animation techniques.
- 4 Create a 2D digital animation sequence.