



Higher National Unit specification

General information

Unit title: 2D Computer Animation

Unit code: H31E 35

Superclass: CE

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Unit purpose

This Unit is designed to provide learners with the knowledge and skills involved in the design and production of a two dimensional computer animation. This Unit would be suitable for learners wishing to develop greater competence in the design, creation and production of animation for various applications.

Outcomes

On successful completion of the Unit the learner will be able to:

- 1 Identify the basic principles of current animation drawing styles and techniques.
- 2 Use computer applications and drawing styles to create animation elements.
- 3 Create a screen based animated sequence to the requirements of a brief.

Credit points and level

2 Higher National Unit credits at SCQF level 8: (16 SCQF credit points at SCQF level 8)

Recommended entry to the Unit

Access to this Unit is at the discretion of the centre. It would be beneficial if the learner had general practical drawing skills and a basic knowledge of computer applications, screen based presentation applications and animation presentations.

Higher National Unit specification: General information (cont)

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Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes for this Unit specification.

There is no automatic certification of Core Skills or Core Skill components in this Unit.

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.

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.

Higher 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.

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. Learners 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

Identify the basic principles of current animation drawing styles and techniques.

Knowledge and/or Skills

- ◆ Basic principles
- ◆ Mechanical concepts of paper and cell animation
- ◆ Computer generated animation
- ◆ Relationship of movement between graphical objects

Outcome 2

Use computer applications and drawing styles to create animation elements.

Knowledge and/or Skills

- ◆ Demonstrate drawing styles and techniques
- ◆ Create a storyboard
- ◆ Create simple objects
- ◆ Understand scripting
- ◆ Keyframes
- ◆ Tweening techniques

Outcome 3

Create a screen based animated sequence to the requirements of a brief.

Knowledge and/or Skills

- ◆ Interpretation of brief
- ◆ Animation sequence
- ◆ Presentation
- ◆ File formats

Higher National Unit specification: Statement of standards (cont)

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Evidence Requirements for this Unit

Learners will need to provide evidence to demonstrate their Knowledge and/or skills across all Outcomes by showing that they can:

Outcome 1

- ◆ provide evidence of research into all items stated above in Knowledge and/or Skills. This can be evidenced either in a visual annotation, sketchbook or notebook.

Outcome 2

- ◆ analyse and apply different drawing styles and techniques.
- ◆ create and develop a storyboard for animation sequencing, prior to working within a computer program.
- ◆ draw objects within a computer-based program.
- ◆ use key-frames, object paths, and morphing and incorporate them correctly.
- ◆ apply tweening techniques to demonstrate accurate movement between key frames.
- ◆ produce a minimum of two short animated sequences.

Outcome 3

- ◆ plan the animation correctly by setting tempo, keyframes, tweening.
- ◆ correctly construct and implement appropriate environment.
- ◆ clearly define movement and interaction between objects.
- ◆ save the final animation to the correct file format.

This Outcome will be assessed by the presentation of a completed animated sequence, lasting a minimum of 15 seconds, saved to a specified format.



Higher National Unit Support Notes

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Higher National Unit Support Notes (cont)

Unit title: 2D Computer Animation

Unit Support Notes are offered as guidance and 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

The Unit is designed to provide learners with the knowledge and skills involved in the design and production of a two dimensional computer animation. This Unit would be suitable for learners wishing to develop greater competence in the design, creation and production of animation for various applications. The Unit should encourage realistic workplace practices and work standards, using industry standard hardware and software. Evidence Requirements are the minimum standards for assessment and should not exclude lecturers from using up-to-date features as software and animation techniques evolve.

Guidance on approaches to delivery of this Unit

Whilst this is an optional Unit within the HNC/HND Visual Communication Group Award, opportunities may be taken to link with other aspects of the course and a thematic approach adopted for both delivery and assessment.

Guidance on approaches to assessment of this Unit

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

A checklist may be used to evaluate the learner's pass criteria and completion of each part of the requirements for Knowledge and/or Skills.

Higher National Unit Support Notes (cont)

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Outcome 1

Learners should be provided with information on the basic principles and mechanical concepts of paper and cell animation. Internet and library facilities should be made available for sourcing current animation drawing styles and techniques. The research will include visual examples and be collated for reference, which will assist the learner in the creation of a storyboard and the animation.

A clear explanation or visual demonstration of the movement between graphical objects will assist the learner in understanding the basics of animation and the phenomenon known as *persistence of vision*.

Outcome 2

The assessment of Outcome 2 may be distinct, or combined with Outcome 3.

Learners should be provided with information and shown, where possible, the basic principles of creating a storyboard and its importance, prior to computer animation. Also, the sequencing of the animation should be correctly identified.

Internet and library facilities should be made available for sourcing current animation drawing styles and techniques. These examples of different styles and techniques should assist the learner in creating simple objects and incorporate special techniques in the animation.

A practical clear explanation and visual demonstration of the correct use of keyframes, tweening, morphing, environments and progress change of graphical objects within an animation.

A checklist could be used to evaluate learner evidence.

Outcome 3

The assessment of Outcome 3 may be distinct, or combined with Outcome 2.

The learner could display an understanding of design creativity and animation techniques, by experimenting with a wide range of appropriate software elements.

The learner should accurately test and save the final animation to the correct file format.

It is also recommended that learners adhere to self-imposed deadlines throughout the duration of the brief. This would demonstrate good project management skills.

Higher National Unit Support Notes (cont)

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The brief should encourage the learner to be creative and include a range of animation techniques as appropriate.

In order to enhance the learner's understanding, a clear explanation and visual demonstration of the basic animation construction principles should be given.

The brief should clearly state in which application the animation will be used. They will be accurately tested and saved to the correct format. Information should be supplied on file formats and extensions.

Learners could scan their own graphics, or create them in separate drawing programs, and incorporate text or graphics obtained from a CD-ROM, database or other electronic sources and the internet.

A checklist could be used to evaluate learner evidence.

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

Opportunities for 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 learner evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at www.sqa.org.uk/e-assessment.

Opportunities for developing Core and other essential skills

Skills in accessing and evaluating electronic sources which provide an effective source of current complex information on the basic principles and mechanical concepts of paper and cell animation as well as professional concerns, issues and ideas will be developed, in order that learners are able to read in depth and in detail current reference materials from a range of internet sites. Checklists to support analytical evaluation of information accessed could include criteria to ensure a check on the currency, authority, accuracy, and balance of all information to be used.

Demonstration, by the assessor, of the correct use of basic animation techniques and construction principles will assist the development of technical skills. There should be formative opportunities for learners to scan their own graphics, or create them in separate drawing programs, and select and import text or graphics obtained from electronic sources. Focus on the presentation of materials appropriate to identified purpose and audience should assure the impact and effectiveness of animation sequences and enhance communication skills.

History of changes to Unit

Version	Description of change	Date

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General information for learners

Unit title: 2D Computer Animation

This section will help you decide whether this is the Unit for you by explaining what the Unit is about, what you should know or be able to do before you start, what you will need to do during the Unit and opportunities for further learning and employment.

This Unit is designed to provide you with the knowledge and skills involved in the design and production of a two dimensional computer animation. This Unit would be suitable for those wishing to develop greater competence in the design, creation and production of animation for various applications.

Outcome 1

In this Outcome you will understand the basic principles of animation, and the mechanical concepts of paper and cell animation.

You will understand the relationship between computer generated animation and cell animation, and the basic principles of current animation drawing styles and techniques.

Outcome 2

In this Outcome you will design a storyboard to the correct specifications, and demonstrate drawing styles and techniques in a two dimensional computer animation presentation.

You will create simple objects and use animation techniques to create accurate movement in a current media software program.

Outcome 3

In this Outcome you will be provided with a production brief/s, which includes a practical project to design and produce an animation to a given deadline.

You will correctly design and construct a two dimensional animation within a current software program. It will be accurately tested and saved to the correct format for the specified application/s.

On completion of this Unit you should be able to:

- 1 Identify the basic principles of current animation drawing styles and techniques.
- 2 Use computer applications and drawing styles to create animation elements.
- 3 Create a screen based animated sequence to the requirements of a brief.