Higher National Graded Unit specification

General information for centres

This Graded Unit has been validated as part of the HNC 3D Computer Animation. Centres are required to develop the assessment instrument in accordance with this validated specification. Centres wishing to use another type of Graded Unit or assessment instrument are required to submit proposals detailing the justification for change for validation.

Graded Unit title: 3D Computer Animation: Graded Unit 1

Graded Unit code: F7FD 34

Type of Graded Unit: Project

Assessment Instrument: Practical Assignment

Credit points and level: 1 HN credit at SCQF level 7: (8 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.*

Purpose: This Graded Unit is designed to provide evidence that the candidate has achieved the following principal aims of the 3D Computer Animation:

- develop a range of contemporary vocational skills within the context of 3D Computer Animation
- prepare candidates for employment in a 3D Computer Animation related post and places at HE establishments
- develop specialist technical skills and knowledge
- conduct independent project work involving the integration and application of a variety of skills within a determined time scale
- develop options to permit an element of vocational specialism

Recommended prior knowledge and skills: It is recommended that the candidate should have completed or be in the process of completing the following Units relating to the above specific aims prior to undertaking this Graded Unit:

Units: from the mandatory section

F5GC 34	*3D Computer Modelling and Animation: an Introduction*
F7ET 34	*3D Computer Animation: Character Modelling Intermediate*
F565 34	*3D Computer Animation: Movement Studies Intermediate*
F5GK 34	*3D Animaton: Lighting*
F7BY 34	*3D Animation: Environmental Modelling*

General information for centres (cont)

and at least one of:

F5GD 34 *3D Animation Drawing Skills*
F45K 34 *Editing: An Introduction*

Core Skills: There are opportunities to develop the Core Skills of *Information and Communication Technology, Problem Solving, Communication* and *Working with Others* all at SCQF level 6 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

Assessment: This Graded Unit will be assessed by the use of Practical Assignment. The developed Practical Assignment should provide the candidate with the opportunity to produce evidence that demonstrates she/he has met the aims of the Graded Unit that it covers.

Administrative Information

Graded Unit code: F7FD 34

Graded Unit title: 3D Computer Animation: Graded Unit 1

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History of changes:

Version	Description of change	Date

Source: SQA

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Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates

Graded Unit title: 3D Computer Animation: Graded Unit 1

Conditions of assessment

The candidate should be given a date for completion of the Practical Assignment**.** However, the instructions for the assessment task should be distributed to allow the candidate sufficient time to assimilate the details and carry out the assessment task. During the time between the distribution of the assessment task instructions and the completion date, assessors may answer questions; provide clarification, guidance and reasonable assistance. The assessment task should be marked as soon as possible after the completion date. The final grading given should reflect the quality of the candidate's evidence at the time of the completion date.

The evidence for the project is generated over time and involves three distinct stages, where each stage has to be achieved before the next is undertaken. Thus any re-assessment of stages must be undertaken before proceeding to the next stage.

If a candidate fails the project overall or wishes to upgrade, then this must be done using a *substantially different* project, ie all stages are undertaken using a new project, assignment, case study, etc. In this case, a candidate's grade will be based on the achievement in the re-assessment, if this results in a higher grade.

Instructions for designing the assessment task

The assessment task is a stand alone project. The project undertaken by the candidate must be a complex task which involves:

- creativity
- variables which are complex or unfamiliar
- relationships which need to be clarified
- a context which may be familiar or unfamiliar to the candidate

The assessment task must require the candidate to:

- complete a creativity task
- analyse the task and decide on a course of action for undertaking the project
- plan and organise work and carry it through to completion
- reflect on what has been done and draw conclusions for the future
- produce evidence of meeting the aims which this Graded Unit has been designed to cover

The project must involve a practical assignment culminating in a finished product, and candidates must demonstrate the application of the skills and knowledge that fall within the context of 3D Computer Animation. The animation will demonstrate the candidates' knowledge of animation techniques creating a smooth, seamless, appropriately lit animation contained within a suitable environment.

Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates (continued)

Suggested projects would be to:

- use one exhibition area of a real life museum or a totally virtual museum, produce a 3D virtual gallery walkthrough containing a minimum of twenty exhibits
- produce a promotional video for a walkthrough of a new modern office complex overlooking a riverside development
- produce a video of an underwater scene based within an aquarium open to the general public
- produce a video for a walkthrough of an early morning riverside scene within a city centre

It is suggested that the animation last between 30 and 60 seconds.

This assessment instrument is not concerned exclusively with practical activity — candidates are provided with a brief that allows them to prepare, plan and demonstrate creative skills.

The candidate will be asked to:

- interpret a brief
- gather information in response to the brief
- demonstrate the ability to integrate research into creative design solutions
- produce a product to an acceptable professional standard
- evaluate the product

The practical assignment and the way it is planned should ensure candidates undertake individual research and investigation in relation to the given brief. The brief should create opportunities for the candidate to express and develop their own creativity.

It is important to emphasise that the candidate must plan their work through the lifetime of the project and continuously monitor their own progress ensuring that adjustments to the plan are carried out as required.

The most appropriate approach to the project is one that requires candidates to integrate skills to produce a creative solution to a given brief. The candidate should be asked to research, consider and develop creative solutions to produce a finished product of a professional standard.

Each candidate must provide his or her individual responses to the given brief and assessors must be satisfied that the work has been completed by the individual candidate. This should be presented in the form of a structured annotated sketch book, log book, storyboard or 3D equivalent.

As part of the developmental stage the candidate must give a simulated client presentation to their lecturer who will take the role of the client. This can be done as a one to one meeting where the candidate will show their storyboard and talk through their plans to gain approval for the animation.

Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates (continued)

Guidance on grading candidates

Candidates who meet the minimum Evidence Requirements will have their achievement graded as C — competent, or A — highly competent or B somewhere between A and C. The grade related criteria to be used to judge candidate performance for this Graded Unit is specified in the following table.

Grade A	Grade C
Is a seamless, coherent piece of work which: ♦ shows sophisticated research approaches ♦ shows critical and evaluative approaches ♦ shows strategic thinking ♦ evidences exceptional technical skills ♦ provides an insightful solution to brief ♦ shows refinement and originality of creative expression ♦ has high visual impact ♦ evidences effective time management ♦ demonstrates independence of thought by successfully completing the stages of the project with infrequent and minimal tutor support	Is a co-ordinated piece of work which: ♦ shows adequate research approaches ♦ shows an analysis of key factors ♦ shows ability to identify problems ♦ evidences practical competence ♦ provides an adequate solution to brief ♦ shows gestural creative expression ♦ is well presented ♦ has guided time management ♦ requires tutor intervention to keep the investigation on track

A sophisticated approach to research would be exhibited by making use of a variety of research sources such as the World Wide Web, a variety of books, magazines and articles relevant to the chosen project. Research at this level would also be well planned and show clear results in line with project.

The project will be marked out of 100. Assessors will mark each stage of the project, taking into account the criteria outlined. The marks will then be aggregated to arrive at an overall mark for the project. Assessors will then assign an overall grade to the candidate for this Graded Unit based on the following grade boundaries.

A = 70% — 100%
B = 60% — 69%
C = 50% — 59%

Note: the candidate must achieve all of the minimum evidence specified below for each stage of the project in order to achieve the Graded Unit.

Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates (continued)

Evidence Requirements

The project consists of three stages: planning; developing; and evaluating. The following table specifies the minimum evidence required to pass each stage.

Note: The candidate must achieve **all of the minimum evidence** specified below for each stage of the project in order to pass the Graded Unit.

Project stage	Minimum Evidence Requirements
Stage 1 — Planning 15%	An action plan which must contain: ♦ The candidates interpretation of the brief ♦ Aims of the practical assignment ♦ Identification of materials and resources and how they will be accessed ♦ Project overview and schedule *The candidate must achieve all of the minimum evidence specified above in order to pass the Planning stage.*
Stage 2 — Developing 75%	Developing Creative Solutions into a finished 3D Computer Animation ♦ Design techniques, ie 2D and/or 3D sketch design, storyboard, roughs, should be produced as design documentation within the project ♦ Demonstrates the ability to integrate research into a finished product ♦ The completed project meets the requirements of the brief ♦ Demonstrates focus, concentration and confidence in the client presentation ♦ Responds appropriately when presenting work ♦ Analyse the requirements and their implications ♦ Review and update the action plan in the light of the experience ♦ Information gathered in response to the brief ♦ Investigation into possible alternative solutions A record of the process underpinning the activity must include an annotated sketch book or log book which must contain the following: ♦ The action plan ♦ Research and development ♦ Documentation of the design process ♦ Alternative design solutions ♦ Mentoring feedback *The candidate must achieve all of the minimum evidence specified above in order to pass the Developing stage.*

Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates (cont)

Project stage	Minimum Evidence Requirements
Stage 3 — Evaluating 10%	An evaluation report which must: ♦ Identify strategies for development ♦ Analyse the client presentation skills ♦ Briefly outline the practical assignment ♦ Identify any knowledge and skills which have been gained or developed ♦ Analyse the use of 2D and 3D elements ♦ Analyse the use of animation *The candidate must achieve all of the minimum evidence specified above in order to pass the Evaluating stage.*

Support notes

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

As this Unit is candidate initiated and candidate driven, it requires only guidance and direction on the part of the assessor. The same staff member may undertake the roles of Assessor and Mentor.

Alternatively, each role may be undertaken by a different staff-member. The candidate is expected to work independently in a creative and professional manner, displaying time management skills in order to successfully complete the Unit.

To ensure effective mentoring as well as assessment, the individual undertaking each role should have a thorough knowledge of the core Units when assessing this Graded Unit. Candidates will present their ideas for each of the three stages at the mentoring sessions.

Plans should be clear and realistic during the Planning Stage.

Ideas in the Development Stage should be supplemented with the candidate's log of activities and ideas for those elements for inclusion in the portfolio, the candidate should explain and justify their actions.

Mentors should ask questions about the development of the portfolio, the techniques and methods chosen, enabling the candidate to explain and justify their portfolio development. The evaluation should take the form of a short report and be the equivalent of approximately 750 words.

Centres should ensure that appropriate checklists are devised.

The candidate should demonstrate a clear and thorough understanding of the requirements of each of the three stages of the Unit. Problem solving skills, analysis of requirements and evaluative abilities should be evident.

Higher National Graded Unit specification: instructions for designing the assessment task and assessing candidates (cont)

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**

General information for candidates

This Unit has been designed to help you achieve the principal aims of the HNC 3D Computer Animation award, and to assess your knowledge and skills relative to the mandatory subjects of the course framework. This will be achieved typically by the resolution of an animation problem, allowing you to explore a range of solutions, arrive at an appropriate and effective resolution, and communicate the solutions in an effective manner.

The Unit will be taught with your Lecturer in the role of facilitator and at times, engaging you as a professional routinely involved in a 3D animation project.

There are three distinct phases to the project, Planning, Developing and Evaluating, worth respectively 15%, 75% and 10% of the total marks awarded for the Unit. In the Planning stage of the Project, you will be expected to consider the nature of the brief set, including factors related to a variety of aesthetic and technical constraints and in response to these, prepare an Action Plan and a Project Brief setting the parameters of the Project. A word count for brief document 800 words or equivalent should suffice.

In the Developing stage of the Project, you will be expected to adhere to the Action Plan, explore and consider possible solutions and using computer aided technological approaches, arrive at an appropriate solution for the Project Brief set. The solutions will be communicated visually, pictorially and in hard copy format, and substantiated by clear support documentation, including the rationale for the solutions reached. Output should be in the form of visuals and/ or graphics.

In the Evaluating stage of the Project, you will be expected to consider the success and efficacy of your solution, providing a presentation of your final solutions and recommendations and reflect upon the experience.

The Unit is graded, and this grade (A–C) quantifies and qualifies the quality of your HNC award. The Unit is largely practical in nature, requiring you to have individual access to a computer system capable of running 3D Animation software. A typical minimum hardware configuration would be a current single user PC fitted with suitable peripherals attached such as a printer/plotter to produce hard copies of your work. Alternatively other configurations such as networked workstations are acceptable provided they can satisfy the Unit's criteria.

Additionally, you will have the opportunity within this Unit to develop Core Skills in *Information and Communication Technology, Problem Solving, Communication* and *Working with Others*, all at SCQF level 6, as you will be working continuously with a computer system and manipulating numerical and graphical data, responding to a project brief and liaising with external stimuli.