Higher National Unit specification

General information for centres

Unit title: Game Design

Unit code: F1GW 35

Unit purpose: This Unit is designed to develop knowledge and skills within the context of game design. It develops knowledge and skills in relation to the background of games design, researching and defining markets and finally in producing proposals for the design of a game. It is intended to encourage candidates to work towards realistic workplace practices and standards.

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

1   Categorise games and demonstrate knowledge of games history.
2   Research and define a target audience for a computer/video game.
3   Create a code free prototype for a computer/video game.

Credit points and level: 2 HN credits at SCQF level 8: (16 SCQF credit points at SCQF level 8*)

*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. Candidates should have an understanding of the computer art and design process having completed HN Units in computer art and design such as HN Units DW9G 34 3D *Animation Motion Studies*, DW9J 34 *Animation: An Introduction*, DW9H 34 3D *Computer Visualisation* or have similar qualifications or experience.

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

Assessment: This Unit may be assessed by means of three independent instruments of assessment. However holistic assessment is recommended for relation to Outcomes 2 and 3.

Outcome 1 is assessed by a collection of research evidence. Evidence should be presented in the form of an illustrated written report or oral/ digital presentation supported by pictorial portfolio.

General information for centres (cont)

Outcome 2 is assessed by a written/oral report. Evidence should be presented in the form of an illustrated written report or oral/ digital presentation supported by pictorial portfolio.

Outcome 3 is assessed by the production of a code free prototype for a computer game. Evidence to support the production of the prototype game should be presented in the form of an oral /digital or written report.

Higher National Unit specification: statement of standards

Unit title: Game Design

Unit code: F1GW 35

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

Categorise games and demonstrate knowledge of games history

Knowledge and/or Skills

- Games genre conventions
- Games design vocabulary
- Research Skills
- Computer games history
- Critical analysis
- Presentation Skills

Evidence Requirements

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

- highlight major milestones in computer games history from a selection of game titles
- correctly categorise major milestones in the evolution of games design
- critically analyse and evaluate games conventions and design vocabulary

Evidence should be supported by images.

Assessment Guidelines

Evidence could be presented in the form of an illustrated written report or oral/ digital presentation supported by pictorial portfolio.

It is recommended that this Outcome be assessed by a separate assessment instrument.

Higher National Unit specification: statement of standards (cont)

Unit title: Game Design

Outcome 2

Research and define a target audience for a computer/video game

Knowledge and/or Skills

♦   Research Skills
♦   Iterative questionnaire design
♦   Analytical Skills
♦   Design evolution

Evidence Requirements

♦   highlight market research data on games design and commercial marketing successes
♦   design and produce an iterative questionnaire to obtain data to support identification and availability of potential target audiences
♦   critically analyse and evaluate evidence collected and give clear recommendations as to how a potential target audience may be catered for
♦   justify design choices using the data obtained
♦   demonstrate the evolution of the proposed games design

Evidence should be supported by images.

Assessment Guidelines

Evidence should be presented in the form of an illustrated written report or oral/ digital presentation supported by pictorial portfolio.

Part of the assessment could be carried out by structured questioning and/or exercises that would guide the production of the report or presentation.

All or part of the above Outcome could be holistically assessed with Outcome 3.

Higher National Unit specification: statement of standards (cont)

Unit title: Game Design

Outcome 3

Create a code free prototype for a computer/video game

Knowledge and/or Skills

♦ Computer/video game prototypes
♦ Game mechanics in pre-production
♦ Iterative game design
♦ Evaluation Skills

Evidence Requirements

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

♦ create a code free game prototype and instruction manual that includes the rules of the game
♦ describe how the game mechanics work
♦ describe how the game caters for the potential audience
♦ evaluate the game, in terms of what's fun and what's not
♦ show the evolution of the design, including reference to elements that have been removed or altered to improve the play experience

Evidence to support the production of the prototype game should be presented in the form of an oral /digital or written report.

Assessment Guidelines

This Unit concentrates on games design, therefore game elements need only be represented graphically; no programming code need be developed.

The assessment could be carried out by structured questions and or exercises to guide the production of the illustrated prototype.

Illustrative techniques and developmental drawings that reflect the games range, scope and objectives would be used as part of the final submission.

The assessment could be partially carried out by structured questions and or exercises to guide the production of the above paper prototype.

Administrative Information

Unit code: F1GW 35

Unit title: Game Design

Superclass category: CB

Original date of publication: April 2007

Version: 02

History of changes:

Version	Description of change	Date
02	Reclassification of superclass from JC to CB.	20/04/2017

Source: SQA

Higher National Unit specification: support notes

Unit title: Game Design

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 the knowledge and skills of the candidate within the context of game design. It develops their knowledge and skills in relation to the background of games design, researching and defining markets and finally in producing proposals for the design of a game. It is intended to encourage candidates to work towards realistic workplace practices and standards.

Candidates could be introduced to various board games as well as console and computer games throughout the Unit. If possible examples of contemporary console/computer games that are also board games should be shown, ie ID's Doom 3 and Relic's Warhammer series of games such as Dawn of War. Candidates could also be introduced to various role-playing games with concepts such as line of sight.

Outcome 1

The first Outcome is intended to equip the student with a vocabulary with which the individual can review and categorise game attributes.

Tutors may find it useful to review board games instead of or as well as computer/console games to illustrate the universal applicability of such a vocabulary.

Tutors may find useful to narrow the scope by assigning influential game creators. At the time of writing these would include Sid Meier, Will Wright, Warren Spector, Richard Garfield, Peter Molyneux and Shigeru Miyamoto.

To categorise games candidates could utilise contemporary taxonomies ie Roger Caillois' model for play, allowing games to be placed into four distinctions:

- **Agôn**: Competitive play for example chess, soccer and other contests
- **Alea**: Chance based play, games of probability many gambling games fall into this category. (Alea being the Latin word for dice)
- **Mimicry**: Role-playing and make-believe, an example of mimicry could be the theatre or other disciplines based on imagination.
- **Ilinx**: Playing with the physical sensation of vertigo, children spinning until they fall over.

Games could also be categorised using their affective tone and play scale. For example, Sega's Samba de Amigo has a light affective tone and is more toward the paidia (less structured less rules), whereas Konami's Silent Hill is based more at the ludus (structured, dependant on rules) end of the scale.

Higher National Unit specification: support notes (cont)

Unit title: Game Design

To further categorize games, the following game attributes could also be taken into account:

♦ Number of players
♦ Turn structure (one after the other or do players play at the same time?)
♦ Percentage of public and private information (eg in poker you don't let anyone know what cards you have)
♦ Goal (in the board game Escape from Colditz there are two types of player the prisoner and security officer each with a different goal)
♦ What percentage of the game is luck and what is skill?
♦ Learning curve

Outcome 2

Questionnaires could be tested on members of public or fellow candidates, Data from questionnaires should be analysed and evaluated and if the data is not descriptive enough further iterations of the questionnaire should be designed and utilized.

Once suitable data is gathered a report or presentation should be created to illustrate potential target audiences are available and how they can be catered to.

Outcome 3

Using the data obtained from Outcome 2 candidates should then design a computer/console game prototype. The creation and evaluation of a prototype is complex and may be best carried out as a group project.

As candidates are involved in the process of game design and not implementation, there is no requirement for actual programming code to be carried out. Game elements can be represented graphically. Students should have access to suitable software applications. Paper prototypes are not suitable to test all video /computer games (for example Alexey Pazhitnov's Tetris) and candidates should be guided as to the suitability of their ideas.

The prototype for a computer/console game could be based on a new game of the candidate's invention or an assigned intellectual property or an existing console/computer game.

Guidance on the delivery and assessment of this Unit

This Unit has been developed as part of the HND Computer Art and Design Award. It is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

Opportunities may be taken to link or integrate with other aspects of the course and a thematic approach adopted for both delivery and assessment.

Assessment could be carried out by guiding candidates through structured questions and or exercises to guide the production of the report or presentation. The fully illustrated report/presentation should identify salient elements of the games evaluated.

Higher National Unit specification: support notes (cont)

Unit title: Game Design

Candidates could be asked to design, analyse evaluate and iteratively re-design a suitable questionnaire or series of questionnaires in order to produce a detailed description and validation of the target audience. The questionnaire could be paper or Internet based.

This Unit can be taken beyond the paper prototype if used in conjunction with Computer Art and Design: Advanced Software Applications, by introduction of scripting and programming languages.

Opportunities for developing Core Skills

Candidates are assessed on their knowledge and understanding of the history, development and genre conventions of computer games which they will research in depth. Accessing information from a range of electronic sources will ensure currency, and candidates should develop skills in critical analysis and evaluation to inform their preparation for the practical design task in Outcome 3. They should be aware of techniques to produce and present written and oral reports to standards acceptable in industry. In written and oral work they need to express essential ideas, information accurately and coherently, using industry terminology.

In order to create a code free game prototype and instruction manual that includes the rules of the game considerable creative planning will be required, and candidates could usefully discuss issues and factors impacting on the design process, including timescales and resources as well as how the game will cater for the potential audience. Criteria for the evaluation of the product and process additional to "fun" qualities could be identified by candidates as they show the evolution of the design, including reference to elements that have been removed or altered to improve the play experience.

Open learning

This Unit could be delivered by open learning provided suitable online materials were developed. A well-defined brief, which took into account of any factors specific to open learning, should be devised. Feedback from the lecturer and peers could come from the formation of an online group where discussions relevant to the Unit could take place.

If this Unit is delivered by open or distance learning methods, additional planning and resources may be required for candidate support, assessment and quality assurance. A combination of new and traditional authentication tools may have to be devised for assessment and re-assessment purposes. For further information and advice, please see the SQA guide, *Assessment and Quality Assurance of Open and Distance Learning* (**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: Game Design

This Unit will allow you to look at the background and history of games design, investigate markets for a potential game and develop a game prototype. You will be encouraged to work towards realistic workplace practices and standards.

For **Outcome 1** you will investigate the history of the development of computer/console games and identify major milestones in their development. You will also categorise games. You will present your research in an oral or written report supported by visual material.

For **Outcome 2** you will create a suitable questionnaire or series of questionnaires to discover and confirm potential audiences for a computer/console game. Using the data obtained from the questionnaires you will then generate a report to show what audiences exist and how the data should guide the design of a game.

For **Outcome 3** you will build a prototype computer/console game using data and design direction obtained from your research in Outcome 2. As the Unit is concerned with game design and not implementation, no actual programming code need be carried out: game elements need only be represented graphically.

This Unit is designed to empower you with knowledge of gaming history and an understanding of the language of game designers.

The Unit will impress upon you the importance of having a viable game/design/idea with a target audience and marketing potential. This is especially important when external investment is sought after to finance game production.

The Unit will illuminate to you inexpensive techniques to critically analyse and evaluate game mechanics before embarking on expensive production.

On completion of this Unit you should be able to:

1   Categorise games and construct and utilise knowledge of game history.
2   Define a target audience for a computer/video game and confirm market validity.
3   Comprehend the value of preproduction and create a code free prototype for a computer/video game.