

Arrangements Document for

**G7A5 15**  
**Higher National Certificate**  
**Interactive Multimedia Creation**

**G7A6 16**  
**Higher National Diploma**  
**Interactive Multimedia Creation**

**Originating Centre: Fife College of Further and Higher Education**

**G7A5 15 HNC Interactive Multimedia Creation**  
**G7A6 16 HND Interactive Multimedia Creation**

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**G7A5 15 HNC Interactive Multimedia Creation**  
**G7A6 16 HND Interactive Multimedia Creation**

## **1 Introduction**

This is the Arrangements document for the Higher National Qualifications in Interactive Multimedia Creation. The awards and units have been devised in accordance with the new design principles for Higher National awards, finalised in May 2003. (Appendix 1)

The document was being submitted for scrutiny by the validation panel in June 2003. The validation event was organised by Fife College.

This document should provide all of the necessary information about the qualification and its aims. However, if further information is required, please contact Christine Sinclair, Team Leader, Information Technology Team, Fife College, Kirkcaldy. (Tel: 01592 268591)

## **2 Background to the Development of the Qualifications**

### **2.1 General Background**

2.1.1 Staff from six Colleges namely Fife, Glenrothes, West Lothian, Angus, James Watt and Jewel and Esk have undertaken the development of this Award. All of the staff involved were committed to developing a vocationally relevant course that will encourage students to develop in ways that will meet their own needs as well as those of their future employers. As part of the collaborative development for the course other activities were undertaken in the form of articulation arrangements, links with industry lead bodies as well as the investigation of vendor links for the Award.

### **2.2 Demand for Multimedia Skills**

2.2.1 The last 5-8 years has seen a dramatic growth in the delivery of HN courses in multimedia throughout Scotland. Traditionally these courses have been in the computing department or the art and design department within Colleges, each producing skilled diplomates in aspects of multimedia technology but each with different skills profiles thus constraining the employment options open to diplomates.

2.2.2 Currently all of the Colleges involved in the development are delivering an HNC and/or HND of some form, in Multimedia. Therefore the main aim of the consortium is to consolidate the existing multimedia frameworks to facilitate a national framework to meet the needs of each individual College as well as to incorporate the recent technological developments in the multimedia discipline.

2.2.3 The jobs market is buoyant. Diplomates from this Award can expect to find employment in a number of areas in the new media industry or alternatively progress to higher level study.

### **2.3 Steering Group**

2.3.1. The development of the awards was undertaken by members of a Consortium which was formed specifically to deal with these qualifications. Membership of the Steering Group is given in Appendix 2.

## 2.4 Consultation

The steering group considered that it was important to consult widely on the revision of the awards. Accordingly, the following consultation took place.

- 1 An online discussion forum was set up to discuss the revision of the units and framework. This was a very valuable means of disseminating information and obtaining feedback.
- 2 A two-day development event for consortium members was held in Kirkcaldy in March 2003. The framework was agreed and outline unit proposals were considered.
- 3 Five one-day meetings of the steering group were held to develop the awards.
- 4 Current students' opinions were surveyed.

## 2.5 Links to Vendor Qualifications

2.5.1 The Consortium contacted Cisco, Adobe and Macromedia, with a view to linking some of their vendor qualifications to the HN Multimedia frameworks. Although there are no agreements at present, it is hoped that it may be possible in the future to provide links between the HN Multimedia qualifications and other vendor qualifications.

## 2.6 The Scottish Credit and Qualifications Framework (SCQF)

- 2.6.1 Due cognisance has been taken of the requirements of the Scottish Credit and Qualifications Framework (SCQF) in the design of these award. This means that the HNC award will be broadly equivalent to the first year of a Scottish degree, while the HND awards will be broadly equivalent to the first and second years of a Scottish degree. All new units have been allocated a SCQF level, HNC being level 7, while HND is level 8.
- 2.6.2 The HN design principles given in Appendix 1 dictate how HNC and HND awards may be composed of units at various levels.
- 2.6.3 Details of the SCQF Level Descriptors at levels 7 and 8 are given in Appendix 3. These Level Descriptors clearly indicate the cognitive skills to be demonstrated at each level.

## 2.7 Core Skills

The importance of core skills has been recognised. Both the HNC and HND include opportunities for candidates to develop core skills to the levels required for the multimedia industry.

Detailed in the table below show opportunities for incorporating the five core skills in the mandatory units of the Award.

|   | Communication | Numeracy | IT | Working with Others | Problem Solving |
|---|---------------|----------|----|---------------------|-----------------|
| DE2Y 34 Multimedia Fundamentals                                       |               | A        | A  |                     |                 |
| DE2T 34 Audio Visual Techniques for Multimedia Applications           | P             |          |    | I                   |                 |
| D75W 34 Multimedia: Developing Multimedia Applications                | P             |          |    | I                   | P               |
| DE31 34 Researching Multimedia Applications for Practical Re-delivery | P             |          |    | I                   | P               |
| DE34 34 User Interface Development                                    |               |          |    |                     |                 |
| DE2W 34 Graphics for Creative Multimedia Design                       |               |          | P  |                     | P               |
| D765 35 Project Management  |               | P        | P  | P                   | P               |
| D75X 34 Information Technology: Applications Software 1               |               |          | H  |                     |                 |

|   |                     |
|---|---------------------|
| A | Aspects addressed   |
| P | Possible            |
| I | May be incorporated |
| H | higher embedded     |

|  |  |  |  |   |  |
|--|--|--|--|---|--|
| DE33 35 User Interface: Testing and Evaluation |  |  |  | P |  |
|--|--|--|--|---|--|

### **3 Rationale and Aims of the Qualifications**

#### **3.1 Rationale**

- 3.1.1 The rationale for development of the HNC/HND in Interactive Multimedia Creation comes from three main areas – student demand, the collaboration of six Scottish Colleges and demand from the fast developing multimedia industries.
- 3.1.2 As the computing and new media industries have developed, technology has improved thus making multimedia solutions more accessible to smaller companies. The requirement for multi-skilled multimedia developers has, in turn, fuelled a demand. As a result of this demand, diplomates entering the new media industry need to have a multidisciplinary background and be equipped with a wide range of expertise. The HND in Interactive Multimedia Creation will provide such a diplomate.
- 3.1.3 The HNC will give the candidates a broad base in multimedia providing them with the required knowledge and creative skills necessary to progress to further study and/or employment in the new media or computing industries.
- 3.1.4 The HND will provide a number of themes that have an emphasis on promoting specialist technical and/or creative skills, and provide the candidate with a deeper understanding of these themes.

This is developed through ‘clusters’ of units dealing with the following themes:

- Audio Visual
- Interactive Entertainment
- Graphics
- Programming for Interactive Multimedia
- Animation

There will also be a cluster of free-standing units to provide flexibility and access to areas such as languages.

In addition, it will enable successful candidates to progress to appropriate degree courses in a range of Multimedia disciplines. Third year degree entry should be possible in most cases, otherwise second year entry is likely.

- 3.1.5 In designing the award, the Steering Group has been fully aware of the need for qualifications which will allow articulation to degree courses while at the same time containing relevant technical and transferable skills which will enable immediate entry to employment. The Steering Group believes that an appropriate balance between 'academic' and 'vocational' (i.e. between knowledge and its practical application) has been achieved.
- 3.1.6 All of the Colleges involved in the development are delivering an HNC and/or HND in Multimedia of some form. The new awards framework will facilitate the needs of these individual Colleges as well as incorporating recent technological developments in the multimedia industry.

## 3.2 General Aims

3.2.1 These HNC and HND awards have a range of broad aims which are generally applicable to all equivalent Higher Education qualifications. Some of these general aims are:

- To develop the candidate's knowledge and skills such as planning, analysing and synthesising.
- To enable the integration of technological and creative skills.
- To develop employment skills and enhance candidates' employment prospects.
- To enable progression within the Scottish Credit and Qualifications Framework.
- To develop study and research skills.
- To develop transferable skills including core skills.
- To provide academic stimulus and challenge, and foster an enjoyment of the subject.

## 3.3 Specific Aims

3.3.1 The specific aims of the **HNC Interactive Multimedia Creation** award are:

- 1 To prepare students for employment in multimedia posts at junior level.
- 2 To develop a range of contemporary vocational skills (ie creative and design skills) relating to the development of multimedia products.
- 3 To provide a flexible curriculum to meet the needs of candidates in employment, recognising their existing experience and skills.
- 4 To prepare students for progression to further study in multimedia.

3.3.2 The specific aims of the **HND Interactive Multimedia Creation** award are similar to those of the HNC above, except that diplomates would expect to enter employment in the multimedia field at a more senior or professional level and to have more in-depth technical skills and specialist knowledge.

The specific aims of the **HND Interactive Multimedia Creation** award are:

- 1 To prepare students for employment in a multimedia-related post at technician or professional level in the creative industries.
- 2 To develop a range of specialist creative and design skills in, and knowledge of the development of multimedia products.
- 3 To prepare students for progression to further study in multimedia or a related discipline.
- 4 To develop an awareness of professional multimedia issues such as legal and ethical considerations.

#### **4 Recommended Conditions for Entry to the Qualification (Access)**

- 4.1.1 As with all SQA qualifications, access will be at the discretion of the Centre and the following recommendations are for guidance only.
- 4.1.2 Some examples of appropriate formal entry qualifications are specified below. They are not exhaustive or mutually exclusive and may be offered in a variety of combinations.
- (i) Scottish Group Awards in Computing and Information Technology at Intermediate 2 or Higher.
  - (ii) Any other relevant Scottish Group Award at Intermediate 2 or Higher.
  - (iii) Any two relevant National Courses at Higher together with three Standard Grade passes at level 3 or above.
  - (iv) An SVQ at level 2 or 3 in Computing, Information Technology or other relevant area.
  - (v) Relevant National Units at appropriate levels (e.g. core skills units at Intermediate 1 or 2\*) combined with any of the above.
- 4.1.3 Different combinations of relevant National Qualifications, Vocational Qualifications and equivalent qualifications from other awarding bodies may also be acceptable, as would suitable vendor qualifications at an appropriate level.
- 4.1.4 It would be advisable for candidates to have some prior knowledge of information technology although formal qualifications may not be necessary if suitable experience has been gained informally or through work experience. Centres may wish to give consideration to inferred or actual evidence of candidates' core skills.
- 4.1.5 Mature candidates with suitable work experience may be accepted for entry provided the enrolling centre believes that the candidate is likely to benefit from undertaking the award.

## **5 Modes of Delivery**

- 5.1 The HNC will be available on both a part-time and a full-time basis. The exact pattern of attendance will be negotiated by individual Centres.
- 5.2 The HND will be available on a full-time basis with candidates normally completing the course over two academic sessions. Individual Colleges may consider offering the HND on a part-time basis. Candidates will be drawn from the following groups:
- those wishing to embark on a career in multimedia or new media industries
  - those who have successfully completed an appropriate academic programme at non-advanced level
  - mature candidates with appropriate experience and multimedia skills

## 6 The Structure of the Qualifications

6.1 The HNC Interactive Multimedia Creation award will consist of 8 core units giving 12 HN credits.

### 6.1.1 G7A5 15 - HNC Interactive Multimedia Creation

Mandatory Core Units:

| <b>Unit No</b> | <b>Title</b>  | <b>Level</b>         | <b>Credit</b> |
|----------------|---|----------------------|---------------|
| DE2Y 34        | Multimedia Fundamentals                                       | 7                    | 2             |
| DE2T 34        | Audio Visual Techniques for Multimedia Applications           | 7                    | 2             |
| D7LR 34        | Writing for the Media   | 7                    | 1             |
| D75W 34        | Multimedia: Developing Multimedia Applications                | 7                    | 2             |
| DE31 34        | Researching Multimedia Applications for Practical Re-delivery | 7                    | 1             |
| DE34 34        | User Interface Development                                    | 7                    | 1             |
| DE2W 34        | Graphics for Creative Multimedia Design                       | 7                    | 2             |
| DE36 34        | HNC Graded Unit: Examination                                  | 7                    | 1             |
|                |   |                      |               |
|                |   | <b>Total Credits</b> | <b>12</b>     |

The specification for the HNC Graded Unit: Exam is contained in Appendix 4. The exam will be used to test the underpinning knowledge and theoretical understanding of key HNC core units.

The examination will be closed book whereby candidates will be given no information other than the question paper and a script book and be expected to answer the questions without the aid of reference material.

6.2 The HND Interactive Multimedia Creation award will consist of:

- 12 core units giving 18 HN credits;
- 8 credits selected from 2 themed clusters;
- 4 optional HN credits.

6.2.1 G7A6 16 - HND Interactive Multimedia Creation

Mandatory Core Units

| Unit No | Title   | Level                | Credit    |
|---------|---|----------------------|-----------|
| DE2Y 34 | Multimedia Fundamentals                                       | 7                    | 2         |
| DE2T 34 | Audio Visual Techniques for Multimedia Applications           | 7                    | 2         |
| D7LR 34 | Writing for the Media   | 7                    | 1         |
| D75W 34 | Multimedia: Developing Multimedia Applications                | 7                    | 2         |
| DE31 34 | Researching Multimedia Applications for Practical Re-delivery | 7                    | 1         |
| DE34 34 | User Interface Development                                    | 7                    | 1         |
| DE2W 34 | Graphics for Creative Multimedia Design                       | 7                    | 2         |
| DE36 34 | HNC Graded Unit: Examination                                  | 7                    | 1         |
| D76J 35 | Project Management  | 8                    | 1         |
| D75X 34 | IT: Applications Software 1                                   | 7                    | 1         |
| DE33 35 | User Interface: Testing and Evaluation                        | 8                    | 2         |
| DE37 35 | HND Graded Unit: Project                                      | 8                    | 2         |
|         |   |                      |           |
|         |   | <b>Total Credits</b> | <b>18</b> |

### 6.2.2 Other Mandatory Units

A cluster is a themed collection of units, each cluster contains 4 HN credits. A candidate must complete 2 clusters. The clusters are as detailed below:

A total of 8 credits must be gained from this section.

#### **C1: Audio Visual**

| <b>Unit No</b> | <b>Title</b>  | <b>Level</b> | <b>Credit</b> |
|----------------|---|--------------|---------------|
| D7XR 35        | Video Production 2: Making a Video Programme                  | 8            | 2             |
| D7XP 35        | Radio Production 2: Producing Programmes in a Range of Styles | 8            | 2             |

#### **C2: Interactive Entertainment**

| <b>Unit No</b> | <b>Title</b>                          | <b>Level</b> | <b>Credit</b> |
|----------------|---------------------------------------|--------------|---------------|
| DE30 35        | Narrative and Genre in Computer Games | 8            | 2             |
| DE2X 35        | Interactive Fiction                   | 8            | 2             |

#### **C3: Programming for Interactive Entertainment**

| <b>Unit No</b> | <b>Title</b>                        | <b>Level</b> | <b>Credit</b> |
|----------------|-------------------------------------|--------------|---------------|
| DE32 35        | Scripting for Interactivity         | 8            | 2             |
| DE2V 35        | Developing Data Driven Applications | 8            | 2             |

#### **C4: Animation**

| <b>Unit No</b> | <b>Title</b>                     | <b>Level</b> | <b>Credit</b> |
|----------------|----------------------------------|--------------|---------------|
| DE35 35        | 2D Digital Imaging and Animation | 8            | 2             |
| DE2N 35        | 3D Modelling and Animation       | 8            | 2             |

#### **C5: Graphics**

| <b>Unit No</b> | <b>Title</b>  | <b>Level</b>         | <b>Credit</b>   |
|----------------|---|----------------------|-----------------|
| DE2P 35        | Advanced Bitmap Graphics for Creative Multimedia Design | 8                    | 2               |
| DE2P 35        | Advanced Vector Graphics for Creative Multimedia Design | 8                    | 2               |
|                |   |                      |                 |
|                |   | <b>Total Credits</b> | <b><u>8</u></b> |

### 6.2.3 Optional Units

A total of 4 credits must be gained from this section:

- (i) Any 2-credit unit(s) from the section (6.2.2) from clusters not otherwise selected (all are listed below);
- (ii) Local Options (up to 4 Credits);
- (iii) 4 HN Credits from the units detailed below:

| <b>Unit No</b> | <b>Title</b>  | <b>Level</b> | <b>Credit</b> |
|----------------|---|--------------|---------------|
| A6Y7 34        | Developing Entrepreneurial Skills                             | 7            | 1             |
| D76A 34        | Internet: Introducing e-Commerce                              | 7            | 1             |
| D76B 34        | Internet: Internet Client Services                            | 7            | 1             |
| D77H 34        | Employment Experience 2                                       | 7            | 1             |
| D76R 35        | SD: Event Driven Programming                                  | 8            | 2             |
| D76S 35        | SD: Fourth Generation Environment                             | 8            | 2             |
| D7XR 35        | Video Production 2: Making a Video Programme                  | 8            | 2             |
| P7XP 35        | Radio Production 2: Producing Programmes in a Range of Styles | 8            | 2             |
| DE30 35        | Narrative and Genre in Computer Games                         | 8            | 2             |
| DE2X 35        | Interactive Fiction   | 8            | 2             |
| DE32 35        | Scripting for Interactivity                                   | 8            | 2             |
| DE2V 35        | Developing Data Driven Applications                           | 8            | 2             |
| DE35 35        | 2D Digital Imaging and Animation                              | 8            | 2             |
| DE2N 35        | 3D Modelling and Animation                                    | 8            | 2             |
| DE2P 35        | Advanced Bitmap Graphics for Creative Multimedia Design       | 8            | 2             |
| DE2R 35        | Advanced Vector Graphics for Creative Multimedia Design       | 8            | 2             |
| A5FW 33        | Basic Communication in French 1                               | 6            | 1             |
| A5K2 33        | Basic Communication in French 2                               | 6            | 1             |
| A5FJ 33        | Basic Communication in Gaelic 1                               | 6            | 1             |
| A5KC 33        | Basic Communication in Gaelic 2                               | 6            | 1             |
| A5FK 33        | Basic Communication in German 1                               | 6            | 1             |
| A5K4 33        | Basic Communication in German 2                               | 6            | 1             |
| A5FL 33        | Basic Communication in Italian 1                              | 6            | 1             |
| A5K5 33        | Basic Communication in Italian 2                              | 6            | 1             |
| A5FT 33        | Basic Communication in Spanish 1                              | 6            | 1             |
| A5KB 33        | Basic Communication in Spanish 2                              | 6            | 1             |
| A5F8 33        | French for Vocational Purposes: Elementary                    | 6            | 3             |
| A5FA 34        | French for Vocational Purposes: Intermediate                  | 7            | 3             |

|         |  |   |          |
|---------|--|---|----------|
| A5FC 34 | French for Vocational Purposes:<br>Advanced      | 7 | 3        |
| A5KY 33 | Gaelic for Vocational Purposes:<br>Elementary    | 6 | 3        |
| A5LC 34 | Gaelic for Vocational Purposes:<br>Intermediate  | 7 | 3        |
| A5LS 34 | Gaelic for Vocational Purposes:<br>Advanced      | 7 | 3        |
| A5F9 33 | German for Vocational Purposes:<br>Elementary    | 6 | 3        |
| A5FB 34 | German for Vocational Purposes:<br>Intermediate  | 7 | 3        |
| A5LT 34 | German for Vocational Purposes:<br>Advanced      | 7 | 3        |
| A5L0 33 | Italian for Vocational Purposes:<br>Elementary   | 6 | 3        |
| A5LD 34 | Italian for Vocational Purposes:<br>Intermediate | 7 | 3        |
| A5LV34  | Italian for Vocational Purposes:<br>Advanced     | 7 | 3        |
| A5L6 33 | Spanish for Vocational Purposes:<br>Elementary   | 6 | 3        |
| A5LK 34 | Spanish for Vocational Purposes:<br>Intermediate | 7 | 3        |
| A5M2 34 | Spanish for Vocational Purposes:<br>Advanced     | 7 | 3        |
|         | Local Options                                    |   | Up to 4  |
|         |  |   |          |
|         | <b>Total Credits</b>                             |   | <b>4</b> |

The specification for the HND Graded Unit: Exam is contained in Appendix 5. This Graded Unit should be undertaken on an individual basis. Students should be encouraged to select an appropriate project that involves them in developing an interactive multimedia presentation, which requires the integration and application of a variety of Multimedia skills within a determined timescale.

## **7 Routes of Progression from the Qualification**

- 7.1 The HNC in Interactive Multimedia Creation will articulate with the HND in Interactive Multimedia Creation.
- 7.2 The HND in Interactive Multimedia Creation will articulate with the BSc in Multimedia Development delivered at Fife College and awarded by the University of Abertay Dundee.
- 7.3 Successful completion of the HND in Interactive Multimedia Creation into one of several University courses. No articulation agreements are in place, but suitable progression might be to:

BSc Computer Games Technology at the University of Abertay Dundee.

BSc Multimedia Technology at Napier University.

## 8 Evidence of Support for the Qualification

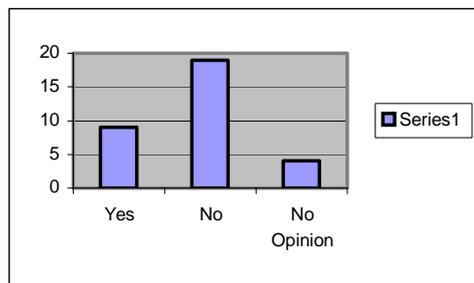
8.1 A survey of current students was conducted, a copy of which can be found in Appendix 6. The analysis of the results are detailed below:

### HNC/D Interactive Multimedia Creation

#### Student Questionnaire

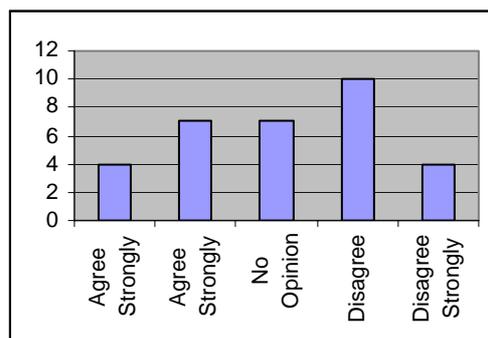
Q1

If you had known that there would be an external examination as part of the course assessment, would it have put you off starting the course?



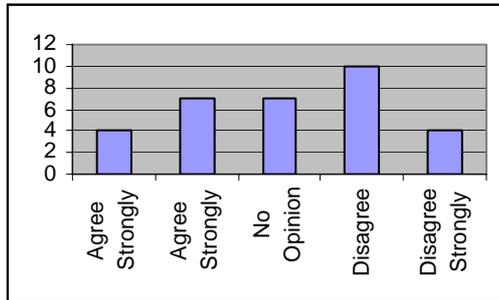
Q2

Do you agree that there should be an external examination as part of the assessment for a Higher National Course?



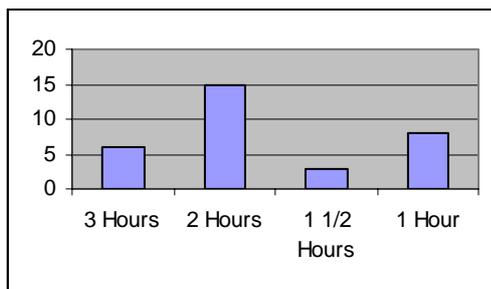
Q3

Do you agree that an external examination would lend more credibility to your course?



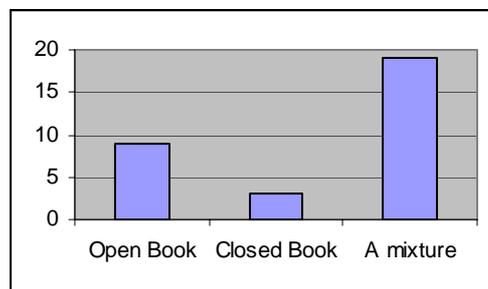
Q4

For how long do you think an external examination should last?



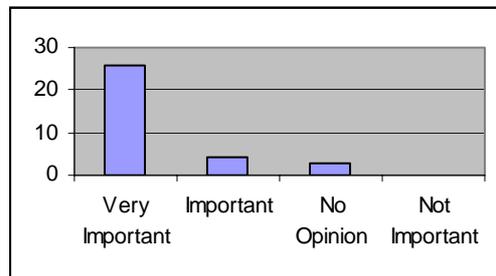
Q5

Do you think an examination should be open book, closed book or a mixture?



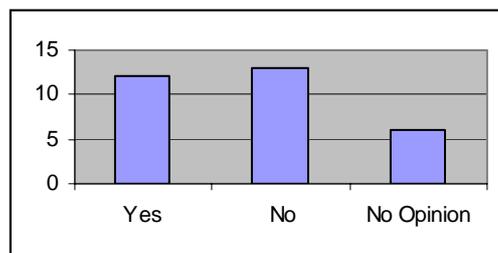
Q6

How important do you think it is that your HNC/HND is recognised by professional bodies?



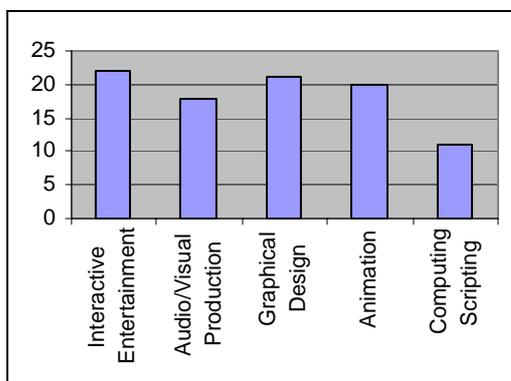
Q7

Would you favour an increase in the number of two-credit and three-credit units (as opposed to single credit units)?



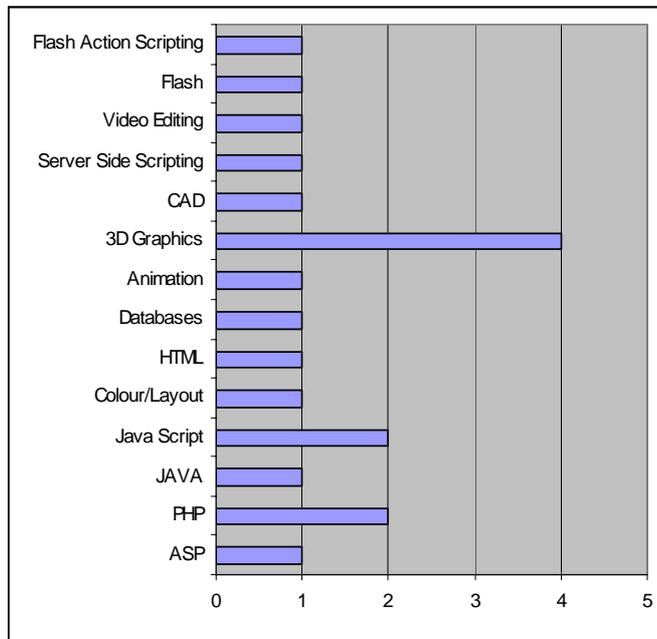
Q8

Which of the following clusters would have been of interest to you?



Q9

What other areas should be considered for inclusion?



## Conclusions :

### Inclusion of examination (HNC Graded Unit)

The majority of the respondents would not have been dissuaded from entering the course, even though they were not convinced that an examination was a useful exercise, either in terms of content or in terms of adding credibility to the course.

The general feeling was that a two hour examination was of sufficient duration, and that such an examination should have both open and closed book components.

### Recognition by external bodies

The responses clearly indicated that the recognition of an HNC/HND award by professional bodies was of high importance to candidates.

### Granularity of units.

There is divided opinion as to whether the granularity of topic areas should be altered from the current arrangements. This is probably an indication that some would prefer to specialise more, while others prefer a more general approach.

### Interactive Entertainment cluster

There was strong indication that a group of units dealing with Interactive Entertainment would have been popular with the group sampled.

### Audio/Visual production cluster

Audio/Visual Production is seen as an important area of multimedia by the respondents, who expressed strong interest.

### Graphical Design

This cluster was deemed the second most interesting.

### Animation

The feeling of the group was that this cluster would be of high interest.

### Computer Scripting.

The group were least interested in this cluster. This may have been based on their prior experience of this topic.

## 8.2 Multimedia Units addressing Skills and Knowledge required in Computer Games Industry

TDP Development Ltd has recently identified a number of skills and knowledge areas which are highly desirable at present in the Computer Games Industry. This document identifies which units in the proposed Multimedia framework contribute to the development of these skills and knowledge areas. This information has been categorised into the 4 key areas of: Design, Creative, Audio and Technical.

### Key Area – Design

**Encyclopaedic knowledge of games and how they work** – this is addressed by the unit *Narrative and Genre in Computer Games*, which enables candidates to design and create their own game prototype based on the core concepts of narrative and genre in computer games. The unit *Interactive Fiction* also provides candidates with an opportunity to critically evaluate interactive elements of computer-based fiction sequences.

**Ability to identify the underlying hook that makes a game fun** – opportunities exist to develop this ability in every unit where candidates are required to evaluate existing multimedia products (such as *Multimedia: Developing Multimedia Applications*, *User Interface: Development etc.*)

**Communication skills, Presentation skills, Report writing ability**– these skills are all developed in units such as *Information Technology: Applications Software 1*, where candidates integrate a range of data types and information using various software packages in order to meet complex information requirements (e.g. produce documents, designs, presentations etc.) *Writing for the Media* also covers many of these core skills.

**Creativity** – the *Advanced Bitmap Graphics for Creative Multimedia Design* and *Advanced Vector Graphics for Creative Multimedia Design* units encourage candidates to use advanced features of bitmapped and vector graphics software in order to produce creative design solutions. *Multimedia: Developing Multimedia Applications* also provides opportunities for candidates to be creative in designing and implementing multimedia solutions to a given project brief.

**Basic knowledge of animation, modelling, and rendering packages** – the units *2D Digital Imaging and Animation* and *3D Modelling and Animation* teach candidates to use software packages to create digital imagery, animation and visual effects.

## Key Area – Creative

**Artistic talent** – the development of artistic talent is encouraged through units such as *Graphics for Creative Multimedia Design* where candidates are required to create a portfolio of bitmap and vector graphics. Creative skills in the area of audiovisual techniques are developed in the unit *Audio Visual Techniques for Multimedia Applications*. Candidates are also able to apply their artistic talent to an entire multimedia project during the unit *Multimedia: Developing Multimedia Applications*.

**Using industry standard packages** – candidates are afforded the opportunity to use industry standard packages (such as Adobe Photoshop, Adobe Premiere, Sonic Foundry's Sound Forge, Macromedia MX Studio etc) whilst creating media elements and multimedia applications for units such as *Multimedia: Developing Multimedia Applications*, *2D Digital Imaging and Animation*, *3D Modelling and Animation*, *Graphics for Creative Multimedia Design*, and *Scripting for Interactivity* which involves the use of multimedia authoring packages.

**Understanding programming roles** – this knowledge is developed in units such as *Scripting for Interactivity* where candidates are required to use the scripting elements of multimedia authoring tools to develop interactive multimedia applications, and also in *Developing Data Driven Applications* where candidates are required to implement scripts in order to manipulate databases.

## Key Area – Audio

**Musical talent** – candidates must acquire original audio material from live and pre-recorded sources in the unit *Audio Visual Techniques for Multimedia Applications*. This provides the opportunity for musical creativity and talent to be developed.

**Using audio software packages** – Candidates are given the opportunity to use audio editors such as Sound Forge from Sonic Foundry. *Audio Visual Techniques for Multimedia Applications* requires that audio elements be acquired, manipulated and edited using such packages.

## Key Area – Technical

**Scripting languages** - scripting elements of multimedia authoring tools are covered in *Scripting for Interactivity*.

**Hardware knowledge** – Candidates are required to operate a range of general IT equipment in outcome 1 of the unit *Information Technology: Applications Software 1*. Specialist multimedia hardware such as video cameras, digital stills cameras and scanners etc are required to be operated in *Audio Visual Techniques for Multimedia Applications*.

**Compression** – candidates must describe the compression of graphic, audio and AV files in the unit *Multimedia Fundamentals*.

**User interface/implementation** – candidates will demonstrate their knowledge and skills relating to user interface design (looking at users' needs, user interaction elements etc) in the unit *User Interface Development*. *User Interface: Testing and Evaluation* provides candidates with the opportunity to evaluate the usability engineering process and techniques utilised in testing a user interface.

**Data conversion** – conversion between analogue and digital representations is part of the underpinning knowledge covered by the unit *Multimedia Fundamentals*. *Multimedia: Re-purposing Multimedia Applications* provides candidates with skills and knowledge required to convert a multimedia application from one distribution medium to another.

**Documentation** – many of the units require candidates to prepare comprehensive documentation to support any multimedia applications or media elements designed and developed. These include units such as *Multimedia: Developing Multimedia Applications*, *2D Digital Imaging*, *3D Modelling and Animation*, *Scripting for Interactivity*, *Advanced Bitmap Graphics for Creative Multimedia Design* and *Advanced Vector Graphics for Creative Multimedia Design*. Additionally, as part of *Project Management*, candidates must provide evidence that they can prepare written documentary evidence relating to subtasks, project milestones, deliverables, task dependencies and resources required for a given project.

Appendix 7 details the key areas of the computer games industry functional map, skills and activities.

### 8.3 Employment Prospects

The computing industry and in particular the multimedia sector is in a constant state of change. As a result of this students entering the industry need to be equipped with a wide range of up to date skills and expertise.

The new HND framework for Multimedia Development will ensure that academic institutions remain at the forefront of the industry, providing students with vocationally relevant and industry specific skills.

Although the computing industry has experienced a downturn in growth over the last year, the multimedia sector has remained constant in its call for fresh new talent. As the Scottish economy continues to grow, industry analysts are predicting an upturn in demand during the second quarter of 2004.

Multimedia students entering the career market could expect to find employment within a wide range of sectors such as new media and the converging media technologies fields. Scotland has a wealth of recruitment agencies and the following list demonstrates the vacancies and areas of potential employment available to multimedia students.

| <b>Job Title</b>          | <b>Skills Required</b>   |
|---------------------------|--|
| Multimedia Developer      | Photoshop, Dreamweaver, 3d Studio Max, Director, HTML, Flash, Streamin Audio |
| Interface Designer        | Javascript, Multimedia Development Tools                                     |
| Technical Author          | Online Help, Multimedia Presentations, Web Design                            |
| Usability Engineer        | Macromedia Director, Flash, Photoshop  |
| Internet Developer        | Macromedia Dreamweaver, HTML, PHP, JAVA                                      |
| Technology Support        | Virtual and Managed Learning environments                                    |
| E-learning Production     | Design and Management of CD Layout, Project coordination Assistant           |
| Authorware specialist     | Authorware, AVI, MPEG  |
| E-learning Project Design | Development and delivery of E-learning solutions                             |
| Creative Producer         | Multimedia Production Education  |
| Localisation engineer     | MS Tools, Web, XML, Help, Multimedia and Software Localisation               |

Continuing articulation agreements between Colleges and Universities are now presenting students with the ability to progress to Degree level study, thereby entering the employment market at graduate level.

Recruitment Opportunities can be found in Appendix 8.

### 8.3 Employer Support

Appendix 9 details letters of support for the qualification from local multimedia companies. The letters confirm not only their support for the Award but also they endorse the content as appropriate and relevant for diplomates entering the creative media sector.

## **9 Copies of Units that will Make up the Qualification**

All units contained in this document have been subject to approval by the SQA.

The unit descriptors for the approved optional units are available from the SQA website at [www.sqa.org.uk](http://www.sqa.org.uk)

# **Appendix 1**

## **Summary of HN Design Principles**

## **Appendix 1: Summary of HN Design Principles**

### **Design Principles for Developing HNCs and HNDs**

HNCs and HNDs have supported technician, technologist and first line manager occupations for over 75 years, including progression in professional qualifications and other higher education awards. More recently, some HNs have been specifically designed to support progression from Modern Apprenticeships and to degrees.

In order to continue serving these occupations, HN programme designers should adhere to the following design principles. Design teams must always conduct market research, particularly among candidates and employers to ensure the continuing fitness for purpose of the HNs. Where this clearly indicates that any of those design principles marked with an asterisk needs to be re-interpreted or modified, SQA will work with the design team to develop alternatives, which are coherent with the other principles.

The validity of the market research and the fitness for purpose of the proposed alternatives will be confirmed at validation.

Further considerations for design teams are also indicated.

#### **(a) Design Principles**

##### **SCQF Level and SCOTCAT points**

- 1 HNCs shall be designed to be at SCQF level 7 and shall comprise 96 SCOTCAT credit points.
- 2 HNDs shall be designed to be at SCQF level 8 and shall comprise 240 SCOTCAT credit points.
- 3 HNCs should incorporate at least 48 SCOTCAT credit points at SCQF level 7.
- 4 HNDs should incorporate at least 64 SCOTCAT credit points at SCQF level 8.

##### **Core Skills**

- 5 HNC and HND programmes shall incorporate opportunities for candidates to develop Core Skills.
- 6 \*HNCs and HNDs should clearly include opportunities for candidates to develop Core Skills to levels required by the occupations or progression pathways the HNs support. This would normally mean all five Core Skills should be developed in every HN programme.

## **Mandatory Section**

- 7 HNCs should normally include a mandatory section of at least 48 SCOTCAT credit points including a Graded Unit. (See Principles 9 and 10 under 'Graded Units' below)
- 8 HNDs should normally include a mandatory section of at least 96 SCOTCAT points, including Graded Units.

## **Graded Units**

- 9 \*HNCs should normally include one Graded Unit of 8 SCOTCAT credit points at SCQF level 7.
- 10 \*HNDs should normally include one Graded Unit of 8 SCOTCAT credit points at SCQF level 7 plus 16 SCOTCAT credit points of Graded Unit(s) at SCQF level 8.

The purposes of Graded Units will be to assess the candidate's ability to integrate and apply the knowledge and/or skills gained in the individual HN Units to demonstrate that they have the principle aims of the group award, and grade candidate achievement.

## **(b) Further Considerations**

### **HN Unit and group award Graded Unit Specifications**

SQA produces guidance on how to write HN Unit and group award Graded Unit Specifications. These include templates and examples of how the specifications should be laid out. This guidance should always be used in developing new or revised HN Unit or group award Graded Unit Specifications. The minimum change to current Unit specifications would be to remove the merit statement and to add an SCQF level and SCOTCAT credit points.

### **Validation of HN Unit Specifications**

A key part of validation is to confirm the proposed allocation of SCQF levels and SCOTCAT credit points to each Unit, and this needs to be seen to be done consistently. Until the process of developing this to centres is fully worked out, SQA will validate all new or revised HN Unit specifications. Centres may continue to develop HN Unit specifications for validation by SQA.

## **Validation of HN Group Awards and group award Graded Units**

Group award validation may continue to be done by those centres with devolved powers to do so. As Graded Units relate to the principle aims of a group award, these too may be validated by devolved centres as part of Group Awards.

### **Validation periods**

HN Units, Graded Units and Group Awards will be kept under review by design teams in order to ensure continuing fitness for purpose. Normally, these will be reviewed every five years or more frequently if recommended by validation panels. However, specific time periods of validation will not be specified.

**Appendix 2**

**Membership of Steering Group**

## **Appendix 2: Membership of Steering Group**

The awards were designed by the Consortium listed below. This group included representatives from Further and Higher Education and the Scottish Qualifications Authority.

Christine Sinclair, Fife College, Conveyor

Peter Bradbeer, Fife College

Eugene Clarke/Alan Morton, West Lothian College

Kevin Clark/Bill Thow, Glenrothes College

Willie Pettigrew, Jewel & Esk College

Tim Brown, James Watt College

Dirk Kirsch, Angus College

Barbara Lawson, Telford College

Mike Marshall, Moray College

## **Appendix 3**

### **SCQF Level Descriptors**

## **Appendix 3: SCQF Level Descriptors**

### **Scottish Credit and Qualifications Framework**

The following two pages contain the SCQF Level Descriptors for Levels 7 & 8.

#### **Communication, Numeracy and IT**

Learners will be able to practice a wide range of advanced skills both generally and in the language of the subject/discipline. They will be able to communicate effectively with peers and more senior colleagues within the confines of established practice. They will be able to operate confidently numerically and graphically, to the extent required by the area and in support of established practices.

#### **SCQF Level 8 – HE2 (Dip HE; HND; SVQ4)**

As an outcome of learning at this level, individuals will have given evidence of a range of the following generic knowledge and understanding, competences, skills and abilities in a specific area. (*“Area” refers to a subject, a discipline or an area of work.*)

#### **Knowledge and Understanding**

Learners will have a sound knowledge base that is integrated and up-to-date. It will include the defining features, boundaries, its main sub-areas and concepts, and main terminology. They will have outline knowledge of the range of specialisms and will have been introduced to developments at the forefront of the area and begun to explore some specialisms and the processes of research.

#### **Practice (applied knowledge and understanding)**

Learners will be able to apply the main practices and techniques of the area, drawing on advanced and specialised knowledge. They will also be able to exercise a few specialised, but not advanced professional skills and practices. They will be able to do this in a variety of technical, specialised or professional contexts some of which will be complex and some of which will be new to the learner but relatively standard to the area. They will often operate under guidance.

#### **Generic Skills**

Learners will be able to solve problems, undertake analysis, synthesis and evaluation. They will be able to operate in these ways to develop solutions, some of which will be innovative, to a variety of unpredictable problems. However, all of this activity will be within the confines of existing basic understandings in the area.

#### **Communication, Numeracy and IT**

Learners will be able to practice a range of advanced skills both generally and in the language of the subject/discipline. They will be able to communicate effectively with peers within the confines of established practice. They will be able to operate confidently numerically and graphically, to the extent required by the area and in support of established practices.

## **Autonomy, accountability and working with others**

Learners will be able to exercise with significant autonomy in certain activities associated with the area and to identify key aspects of their own performance for comment or evaluation. In other areas they will have to operate under supervision. These activities might cover processes such as designing, planning, executing and evaluating within the general body of knowledge, skills and practices for the area. They will be able to take significant responsibility for the supervision of others or in the management of work and resources. They will be able to work independently or with peers, within the confines of existing general practices. They will work in support of current practice under guidance.

## **SCQF Level 7 – HE1 (Cert HE; HNC; AH)**

As an outcome of learning at this level, individuals will have given evidence of a range of the following generic knowledge and understanding, competences, skills and abilities in a specific area. (*“Area” refers to a subject, a discipline or an area of work.*)

### **Knowledge and Understanding**

Learners will have a broad knowledge of the area and an appreciation of the scope of the area. This will include familiarity with the main theoretical concepts, principles and boundaries of the area and familiarity with the main terminology. They will have outline knowledge of areas of specialism and a growing appreciation of the evolving nature of knowledge and understanding. They will have been introduced to the processes of research. They will also have a clear understanding of the social relevance of the subject.

### **Practice** (applied knowledge and understanding)

Learners will be able to apply some of the most familiar of the basic professional skills and practices of the area. They will operate mainly in standard situations and also in creative or non-routine activities.

### **Generic Skills**

Learners will be able to solve problems, undertake analysis, synthesis and evaluation. They will be able to operate in these ways to develop solutions, some of which will be innovative, to a variety of unpredictable problems. However, all of this activity will be within the confines of existing basic understandings in the area.

### **Communication, Numeracy and IT**

Learners will be able to practice advanced skills generally and in the context of the subject/discipline. They will be able to communicate effectively with peers employing well-structured communications and interpreting complex texts and messages. They will be able to deploy a wide range of numerical and graphical skills, in combination where required by the area. They will be able to process a range of information using IT and working independently.

### **Autonomy, accountability and working with others**

Learners will be able to exercise with significant autonomy in certain activities and will have an appreciation of the areas of performance that are critical to success. In other areas they will have to operate under supervision. They will be able to take responsibility for the supervision of others or for the management of work and resources under guidance. They will be able to work independently or with peers within the confines of existing general practices. They will work in support of current practice under guidance.

## **Appendix 4**

### **HNC Graded Unit: Exam**

# Higher National Group Award Graded Unit Specification

## General Information for Centres

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

**Group Award Graded Unit Title:** HNC Interactive Multimedia Creation:  
Group Award Graded Unit 1

**Group Award Graded Unit Code:** DE36 34

**Type of Group Award Graded Unit:** Examination

**Assessment Instrument:** Closed book question paper

**Credit value:** 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 group award Graded Unit is designed to provide evidence that the candidate has achieved the following principal aims of the HNC Interactive Multimedia Creation:

- Develop knowledge and skills in analysis and synthesis
- Develop study and research skills
- Prepare candidates for progression to further study in multimedia or a related discipline.

**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 these specific aims prior to undertaking this group award Graded Unit:

- DE2Y 34 Multimedia Fundamentals – 2 HN credits
- DE34 34 User Interface Development – 1 HN credit
- DE2W 34 Graphics for Creative Multimedia Design – 2 HN credits
- D7LR 34 Writing for the Media – 1 HN credit

## **General Information for Centres (cont)**

**Core Skills:** There are no Core Skills embedded in this group award Graded Unit specification. However there may be opportunities to gather evidence towards core skills in this unit.

**Assessment:** This examination-based group award Graded Unit is a closed book question paper. It will consist of a written examination of three hours.

## **Administrative Information**

**Graded Unit Code:** DE36 34

**Graded Unit Title:** HNC Interactive Multimedia Creation – Group Award Graded Unit 1

**Date of publication:** November 2003

**Source:** SQA

**Special Needs:** This group award Graded Unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering special alternative assessment arrangements. For information on these, please refer to the SQA document *Guidance on Special Assessment Arrangements* (December 2001, AA0645/3).

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## Higher National Group Award Graded Unit specification:

### Instructions for designing the assessment task and assessing candidates

**Group Award Graded Unit Title:** HNC Interactive Multimedia Creation:  
Graded Unit 1

### Conditions of Assessment

The assessment is based on a closed book question paper written examination lasting three hours. The grade given will reflect the candidate's achievement on the first assessment event. A candidate may wish to retake the group award Graded Unit but this should be based on a significantly different examination.

The examination should be unseen and the assessment should be conducted in controlled and invigilated conditions.

### Instructions for designing the assessment task:

The examination should be designed to assess the candidate's critical knowledge and understanding of the topics relating to the specific aims which this group award Graded Unit is designed to cover. The questions and corresponding marks should be designed in accordance with the ranges indicated in the table that follows. However, the overall total mark for the examination is 100.

| Topic                               | Level of knowledge/<br>understanding                                      | Weighting/<br>Mark Allocation |
|-------------------------------------|---|-------------------------------|
| <b>Section 1</b>                    |   |                               |
| Multimedia Fundamentals             | State, identify, describe,<br>select                                      | 12%                           |
| User Interface Development          | State, identify, describe,<br>select                                      | 8%                            |
| Graphics for Creative<br>Multimedia | State, identify, describe,<br>select                                      | 12%                           |
| Writing for the Media               | State, identify, describe,<br>select                                      | 8%                            |
| <b>Section 2</b>                    |   |                               |
| Multimedia Fundamentals             | Illustrate, explain,<br>categorise, summarise,<br>compare, test, evaluate | 20%                           |
| User Interface Development          | Select, compare, categorise,<br>evaluate, describe, explain,<br>summarise | 10%                           |
| Graphics for Creative<br>Multimedia | Describe, explain, plan,<br>compare, test, design                         | 20%                           |
| Writing for the Media               | Describe, explain, illustrate,<br>give examples                           | 10%                           |
| <b>TOTAL for Paper</b>              |   | <b>100%</b>                   |

## **Higher National Group Award Graded Unit specification**

### **Instructions for designing the assessment task and assessing candidates (cont)**

The examination will be marked out of 100. Assessors will aggregate the marks achieved by the candidate to arrive at an overall mark for the examination. Assessors will then assign a grade to the candidate for this group award Graded Unit based on the following grade boundaries:

- ◆ A = 70% – 100%
- ◆ B = 60% – 69%
- ◆ C = 50% – 59%

**Appendix 4: HNC Graded Unit: Exam**

## **Appendix 5**

**HND Graded Unit: Practical Assignment**

# Higher National Group Award Graded Unit Specification

## General Information for Centres

This Group Award Graded Unit has been validated as part of the HND Interactive Multimedia Creation. Centres are required to develop the assessment instrument in accordance with this validated specification. Centres wishing to use another type of Group Award Graded Unit or assessment instrument are required to submit proposals detailing the justification for change for validation.

**Group Award Graded Unit Title:** HND Interactive Multimedia Creation – Graded Unit

**Group Award Graded Unit Code:** DE37 35

**Type of Group Award Graded Unit:** Project

**Assessment Instrument:** Practical assignment

**Credit value:** 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.*

**Purpose:** This Group Award Graded Unit is designed to provide evidence that the candidate has achieved the following principal aims of the HND Interactive Multimedia Creation.

- To prepare candidates for employment in the multimedia or new media industries
- To develop a range of specialist technical skills and knowledge in the use of multimedia development strategies, tool and applications.
- Conduct independent project work involving the integration and application of a variety of multimedia skills within a determined time scale.

**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 Group Award Graded Unit:

- D75J 35      Project Management
- D75W 34      Multimedia: Developing Multimedia Applications
- DE33 35      User Interface Testing and Evaluation
- DE2W 34      Graphics for Creative Multimedia Design

## **General Information for Centres (cont)**

**Core Skills:** There is no automatic certification of Core Skills or a Core Skill component as part of this Graded Unit. However, there may be opportunities to develop the Core Skill of Problem Solving.

**Assessment:** This Group Award Graded Unit will be assessed by the use of a practical assignment. The “fleshed-out” practical assignment should provide the candidate with the opportunity to produce evidence that demonstrates she/he has met the aims of the Group Award that this Group Award Graded Unit covers.

This Graded Unit should be undertaken on an individual basis. Candidates should be encouraged to select an appropriate project that involves them in developing an interactive multimedia presentation which requires the integration and application of a variety of multimedia skills within a determined time scale.

## **Administrative Information**

**Graded Unit Code:** DE37 35

**Graded Unit Title:** HND Interactive Multimedia Creation – Group Award Graded Unit 2

**Date of publication:** November 2003

**Source:** SQA

**Special Needs:** This Group Award Graded Unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering special alternative assessment arrangements. For information on these, please refer to the SQA document *Guidance on Special Assessment Arrangements* (December 2001, AA0645/3).

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## **Higher National Group Award Graded Unit Specification: Instructions for designing the assessment task and assessing candidates**

**Group Award Graded Unit Title:** HND Interactive Multimedia Creation:  
Group Award Graded Unit 2

### **Conditions of Assessment**

The candidate should be given a date for completion of the (*insert assessment instrument*). 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. Reassessment of this Group Award Graded Unit should be based on a significantly different assessment task.

At this level, candidates should work independently. It is up to Centres to take reasonable steps to ensure that the project is the work of the candidate. For example, Centres may wish to informally question candidates at various stages on their knowledge and understanding of the project on which they have embarked. Centres should ensure that where research etc, is carried out in other establishments or under the supervision of others that the candidate does not receive undue assistance.

### **Instructions for designing the assessment task**

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

- ◆ 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:

- ◆ identify a suitable situation where an interactive multimedia solution could be implemented
- ◆ analyse the task and decide on a course of action for undertaking the project
- ◆ identify the client and user requirements for the project
- ◆ consider and evaluate possible elements that could be used to form a solution to the project
- ◆ plan and organise work and carry it through to completion
- ◆ design and build an interactive multimedia solution to a given specification
- ◆ construct or assemble scripts to provide interactivity
- ◆ test and evaluate the solution, tracking changes and making amendments where required
- ◆ reflect on what has been done, critically evaluate the approach taken to the project, and draw conclusions for the future
- ◆ produce evidence of meeting the aims which this Group Award Graded Unit has been designed to cover

## Higher National Group Award Graded Unit specification: Instructions for designing the assessment task and assessing candidates (cont)

### 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   |
|---|---|
| <p>Is a seamless, coherent piece of work which:</p> <ul style="list-style-type: none"> <li>• has sufficient evidence for the three essential phases of the project, is produced to a high standard, and is quite clearly inter-related</li> <li>• demonstrates an accurate and insightful interpretation of the project brief</li> <li>• is highly focused and relevant to the tasks associated with the project brief</li> <li>• is clear and well structured throughout and language used is of a high standard in terms of level, accuracy and technical content</li> <li>• effectively consolidates and integrates required knowledge and skills</li> </ul> | <p>Is a co-ordinated piece of work which:</p> <ul style="list-style-type: none"> <li>• has sufficient evidence of the three essential phases of the project, is produced to an adequate standard</li> <li>• demonstrates an acceptable interpretation of the project brief</li> <li>• is focused and relevant to the tasks associated with the project brief</li> <li>• is satisfactorily structured and language used is adequate in terms of level, accuracy and technical content</li> <li>• consolidates and integrates knowledge and skills but this may lack some continuity and consistency</li> </ul> |

## Higher National Group Award Graded Unit specification: Instructions for designing the assessment task and assessing candidates (cont)

### 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 Group Award Graded Unit.

| Project Stage      | Minimum Evidence Requirements  |
|--------------------|--|
| Stage 1 — Planning | <ul style="list-style-type: none"> <li>• analysis of project, identifying the factors influencing the project and how these inter-relate</li> <li>• a development approach to deal with the project – candidate may:               <ul style="list-style-type: none"> <li>➤ select or adapt an accepted project model</li> <li>➤ design a new approach to the project</li> </ul> </li> <li>• a justification for this selection, adaptation, or development of the adopted approach, in terms of:               <ul style="list-style-type: none"> <li>➤ resources available</li> <li>➤ time available</li> <li>➤ comparisons with other possible approaches</li> </ul> </li> <li>• a project development plan to carry out the project based on the analyses undertaken</li> <li>• an investigation into possible alternative solution – candidates should conduct a critical evaluation of existing solutions</li> </ul> <p><i>The candidate must achieve all of the minimum evidence specified above in order to pass the Planning stage.</i></p> |

| Project Stage        | Minimum Evidence Requirements  |
|----------------------|--|
| Stage 2 — Developing | <ul style="list-style-type: none"> <li>• a project plan and a project schedule should be produced for the development work, using appropriate project management software</li> <li>• design techniques such as: <ul style="list-style-type: none"> <li>➤ storyboards</li> <li>➤ structure charts</li> <li>➤ pseudo code</li> <li>➤ logical flow charts</li> </ul> </li> </ul> <p style="text-align: right;">should be produced by candidates as design documentation for the project.</p> <ul style="list-style-type: none"> <li>• the design of interaction elements should be included</li> <li>• a catalogue of multimedia assets used within the project is required</li> <li>• scripts, complete with internal documentation, should be included, if used in the project</li> <li>• the completed product</li> <li>• the development of a suitable and appropriate test strategy</li> <li>• defects found during testing are listed and evidence of their correction provided</li> <li>• demonstration that the product has been sufficiently tested to assure reasonably low defect levels, evidenced by a formal testing document</li> </ul> <p><i>The candidate must achieve all of the minimum evidence specified above in order to pass the Developing stage</i></p> |

| Project Stage        | Minimum Evidence Requirements  |
|----------------------|--|
| Stage 3 — Evaluating | <ul style="list-style-type: none"> <li>• an evaluation of the effectiveness of the approach/strategy adopted, including all stages of the project: <ul style="list-style-type: none"> <li>➤ project analysis</li> <li>➤ project organisation</li> <li>➤ outcome of project</li> </ul> </li> <li>• the evaluation should include <ul style="list-style-type: none"> <li>➤ the criteria on which to base the evaluation</li> <li>➤ the identification and gathering of appropriate evidence: <ul style="list-style-type: none"> <li>- use of qualitative / quantitative methods</li> <li>- comparisons with other systems / products</li> <li>- impact studies</li> <li>- product testing</li> <li>- market research</li> </ul> </li> </ul> </li> <li>• evaluation of the effectiveness of the problem solving activity which explains the relevance of the evidence – this should be related to the original project analysis</li> <li>• alternative approaches considered are listed</li> <li>• modifications to chosen approach during the course of the project are documented</li> <li>• recommendations, with justifications, for the future which are relevant to the problem</li> </ul> <p><i>The candidate must achieve all of the minimum evidence specified above in order to pass the Evaluating stage</i></p> |

## **Appendix 6**

### **Student Questionnaire**

## Appendix 6: Student Questionnaire

### HNC/D INTERACTIVE MULTIMEDIA CREATION Award Arrangements

#### Student Questionnaire

The Interactive Multimedia Creation Consortium would be grateful if you could spend a few minutes completing this questionnaire. The results will allow us to improve the design of the new HNC/D Interactive Multimedia Creation course.

- 1 If you had known that there would be an external examination as part of the course assessment, would it have put you off from starting the course?

| Yes | No | No Opinion |
|-----|----|------------|
|     |    |            |
|     |    |            |

- 2 Do you agree that there should be an external examination as part of the assessment for a Higher National course?

| Agree Strongly | Agree | No Opinion | Disagree | Disagree Strongly |
|----------------|-------|------------|----------|-------------------|
|                |       |            |          |                   |
|                |       |            |          |                   |

- 3 Do you agree that an external examination would lend more credibility to your course?

| Agree Strongly | Agree | No Opinion | Disagree | Disagree Strongly |
|----------------|-------|------------|----------|-------------------|
|                |       |            |          |                   |
|                |       |            |          |                   |

- 4 For how long do you think an external examination should last?

|   |          |  |
|---|----------|--|
| a | 3 hours  |  |
| b | 2 hours  |  |
| c | 1½ hours |  |
| d | 1 hour   |  |

5 Do you think that an examination should be:

|   |                      |  |
|---|----------------------|--|
| a | Open book only       |  |
| b | Closed book only     |  |
| c | A mixture of a and b |  |

6 How important to you is it that your HNC/D is recognised by professional bodies?

| <b>Very Important</b> | <b>Important</b> | <b>No Opinion</b> | <b>Not Important</b> |
|-----------------------|------------------|-------------------|----------------------|
|                       |                  |                   |                      |
|                       |                  |                   |                      |

7 Would you favour an increase in the number of two-credit and three-credit units (as opposed to single credit units)?

| <b>Yes</b> | <b>No</b> | <b>No Opinion</b> |
|------------|-----------|-------------------|
|            |           |                   |
|            |           |                   |

8 Which of the following clusters would have been of interest to you?

|     |                           |  |
|-----|---------------------------|--|
| i   | Interactive Entertainment |  |
| ii  | Audio/Visual Production   |  |
| iii | Graphical Design          |  |
| iv  | Animation                 |  |
| v   | Computing Scripting       |  |

9 What other areas should be considered for inclusion?

|  |
|--|
|  |
|--|

## **Appendix 7**

### **Unit Specifications**

(Separate Document)