

## Higher National Unit Specification

### General information for centres

**Unit title:** Audio for Multimedia: An Introduction

**Unit code:** DJ1Y 33

**Unit purpose:** This unit is designed to introduce candidates to the use of audio within multimedia applications. The overall structure of the unit will provide candidates with both theoretical and practical experience of the uses of audio within specific multimedia contexts. This unit will allow candidates to develop the skills to confidently and appropriately plan, prepare and apply audio within a multimedia context. This unit is intended to introduce candidates to the use of audio within multimedia applications as an area of potential employment.

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

1. Investigate the use of audio within a multimedia context
2. Capture and edit audio using computer hardware and software
3. Apply prepared audio to a multimedia artefact

**Credit points and level:** 1 HN Credit at SCQF level 6: (8 SCQF credit points at SCQF level 6\*)

*\*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:** Candidates should have an understanding and basic experience of working within a computer environment. An understanding of the basic principles of audio and multimedia may also be beneficial. This may be demonstrated by the achievement of a relevant NQ Multimedia unit. Candidates should also have good communication skills. These may be demonstrated by the achievement of core skill Communication at Higher level or by possession of Higher English and Communication or a suitable NQ Communication Unit (SCQF level 5/6).

**Core skills:** There may be opportunities to gather evidence towards core skills in this Unit, although there is no automatic certification of core skills or core skills components.

**Context for delivery:** This is an optional Unit in the frameworks for HNC/D Sound Production Group Awards. 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.

## General information for centres (cont)

**Assessment:** The Outcomes within this unit must be assessed on an individual basis. It is recommended that the candidate should work through the Outcomes in order, with the assessable work submitted being related to the candidate's choice of multimedia artefact in which the audio will be used. The unit as a whole should be approached as a project, with each outcome relating, in chronological order, to stages within the production and use of audio for multimedia.

The assessments for each outcome will be as follows:

- Outcome 1 is assessed by a written report in response to extended response questions under open book controlled conditions, completed in one sitting.
- Outcome 2 is assessed by a response to a brief and the creation of a plan of action, the capturing of audio, collected from any source and the recording of the audio onto a computer.
- An assessor's checklist will be used to gather evidence regarding the candidate's performance.
- Outcome 3 the assessor will gather physical evidence of the work completed by the candidate, by an appropriate means, whereby the candidate will demonstrate the use of computer software to apply audio to a chosen multimedia artefact.

## **Higher National Unit specification: statement of standards**

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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**

Investigate the use of audio within a multimedia context

#### **Knowledge and/or skills**

- ◆ Appropriate uses of audio to create the desired effect
- ◆ Sound sources
- ◆ Hardware and software requirements
- ◆ Storage requirements for digital audio

#### **Evidence requirements**

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

- ◆ Accurately describe the appropriate uses of audio to create the desired effect within the chosen multimedia context
- ◆ Correctly identify and describe the possible sound sources for the applied audio. A variety of sound sources should be identified by the candidate, depending on the nature of the chosen multimedia artefact
- ◆ Accurately describe the hardware and software requirements for both the creation and use of digital audio within a computer environment
- ◆ Describe the storage requirements for digital audio within a computer environment. Identification of file types and various standard compression formats should be clear in relation to a multimedia context specified by the candidate

Candidates will be required to prepare a report in response to extended response questions under open book controlled conditions, completed in one sitting.

## **Hi Higher National Unit specification: statement of standards (cont)**

**Unit title:** Audio for Multimedia: An Introduction

### **Assessment guidelines**

Assessment for this Outcome should take the form of a written report. Candidates should base their report on their chosen multimedia context/artefact. It is possible for this outcome to be undertaken as research into preparation for Outcomes 2 and 3. It is essential that the candidate meet all areas described within the evidence requirements before moving on to the later Outcomes.

The assessment for this Outcome should not be combined with any other Outcomes.

Should there be ambiguity regarding a candidate's response, oral questioning may be used to eliminate any doubt as to the candidate's understanding. The lecturer should note questions and responses.

### **Outcome 2**

Capture and edit audio using computer hardware and software

#### **Knowledge and/or skills**

- ◆ Create a plan of action
- ◆ Set computer hardware and software parameters for audio recording
- ◆ Manage and store audio files appropriately
- ◆ Edit audio
- ◆ Apply effects

#### **Evidence requirements**

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

- ◆ Completed an action plan.
- ◆ Set both hardware and software settings for recording audio within a computer environment. This should include, where appropriate; cabling, mixing signal inputs, recording format and parameters.
- ◆ Demonstrate effective file management and appropriately store audio files for editing. The candidate should create folders for the recording and saving of all created files
- ◆ Edit audio for use within the chosen multimedia context. This should include editing the audio to the desired length, e.g. top and tail. The candidate must also demonstrate the creation of both one shot and seamless looping audio files.
- ◆ Appropriately and effectively apply effects to meet the requirements needed for the audio to be used within the chosen multimedia context. This should cover both dynamic and digital effects and any relevant processing

## **Higher National Unit specification: statement of standards (cont)**

### **Unit title:** Audio for Multimedia: An Introduction

An Observation checklist will be used to record the candidate's use of computer hardware and software in the recording and editing process and demonstration of file management skills.

A copy of the all audio files is required for evidence for external moderation

Candidates will respond to a brief where they must first create a plan of action detailing the need and requirements for audio within their chosen multimedia artefact. They will then capture audio which may be collected from any source necessary for the candidate to meet the requirements stated in this plan. This may include compact disk, mini-disk and live location recordings. The final result must be recorded as digital audio onto a computer. All audio must be edited to the required specification using standard audio editing software.

### **Assessment guidelines**

The assessment for this Outcome should not be combined with any other Outcomes.

The assessor should, by means of a checklist ensure the candidate has met all evidence requirements. Reference should also be made to the candidates' plan ensuring all audio requirements stated in relation to the chosen multimedia artefact have been met.

Should there be ambiguity regarding a candidate's response, oral questioning may be used to eliminate any doubt as to the candidate's understanding. The lecturer should note questions and responses.

### **Outcome 3**

Apply prepared audio to a multimedia artefact

#### **Knowledge and/or skills**

- ◆ Compress and save audio for use within a multimedia artefact
- ◆ Import and embed audio within a multimedia artefact
- ◆ Synchronise audio within a multimedia artefact

#### **Evidence requirements**

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

- ◆ Apply compression settings to a digital audio file and save the file appropriately, meeting requirements of the chosen multimedia artefact.
- ◆ Import and embed the prepared audio within a multimedia artefact. The use of audio should be relevant to, and follow all given uses of audio within the candidate's response to Outcome 1, and/or, his/her written plan for Outcome 2.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Audio for Multimedia: An Introduction

- ◆ Effectively synchronise audio within a multimedia artefact. This should include the appliance of audio to specific time points within a multimedia artefact, including the streaming of audio with any visual elements.
- ◆ Produce a finalised multimedia artefact on suitable medium.

The candidate should demonstrate appropriate use of computer software programmes in the appliance of audio to the chosen multimedia artefact. A copy of the final multimedia artefact on suitable medium should be retained as evidence along with Observation checklist/s.

### **Assessment guidelines**

Evidence for completion of this Outcome must be provided in physical form, collected by the assessor in an appropriate medium, which should then be reviewed and a checklist completed. The assessor may also view the candidate's performance throughout this Outcome, completing a checklist on completion of each area required as evidence.

It is advisable that the candidates be allowed to keep a copy of the report for Outcome 1 for use as reference for the completion of Outcomes 2 and 3.

The assessment for this Outcome should not be combined with any other Outcomes.

Should there be ambiguity regarding a candidate's response, oral questioning may be used to eliminate any doubt as to the candidate's understanding. The lecturer should note questions and responses.

## Administrative Information

**Unit code:** DJ1Y 33

**Unit title:** Audio for Multimedia: An Introduction

**Superclass category:** CE

**Date of publication:** September 2004

**Version:** 02

### History of changes:

Version	Description of change	Date
02	Removal of Word Count and Presentation Length.	02/06/11

**Source:** SQA

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## **Higher National Unit specification: support notes**

### **Unit title:** Audio for Multimedia: An Introduction

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 40 hours.

### **Guidance on the content and context for this Unit**

This unit is primarily intended to introduce candidates to the use of audio within multimedia applications. The overall structure of the unit has been developed to give candidates both theoretical and practical experience of the uses of audio within specific multimedia contexts. The candidate should, on completion of the unit, be able to confidently and appropriately plan, prepare and apply audio within a multimedia context.

It is possible that some candidates may have prior knowledge in audio recording or multimedia production. This unit should be used as a tool to further develop the candidates' understanding, of both the creation and appliance of audio within a specific context.

Although it is advisory that candidates should be subject to an understanding of the general use of audio within a variety of commercially available multimedia genres, the candidates are only required to develop course evidence for use within one multimedia application, familiar or accessible to candidates within, for example, their place of study.

Outcome 1 looks at the use of audio within a multimedia artefact.

The candidates should develop a report meeting all performance criteria. They should be encouraged to think about the following:

- ◆ The particular multimedia artefact in which they will investigate the use of audio.
- ◆ The requirements the above multimedia artefact will need in terms of audio use. This should take into account target audience and proposed medium in which the application will be viewed.
- ◆ All relevant hardware and software requirements that will contribute to the production of audio needed for the artefact.

Outcome 2 looks at the use of computer hardware and software in the creation of audio within multimedia context. As this is the second stage of audio production, the candidates should have all the necessary preparation and understanding to complete this Outcome.

The candidates should have a plan which details exactly what they hope to achieve by applying audio to the artefact. This should be taken into account when selecting, and editing audio needed for this Outcome.

## **Higher National Unit specification: support notes (cont)**

### **Unit title:** Audio for Multimedia: An Introduction

Outcome 3 looks at the practical appliance of audio to a multimedia artefact. Similar to Outcome 2, the candidates should already have all necessary preparation written and detailed within their plan.

As candidates are required to apply the prepared audio within a multimedia artefact, the candidates should have a basic understanding of the software used in the creation of the chosen multimedia project. The candidates should have prior knowledge of all file types and compression formats used within the chosen multimedia context, as well as compatibility with the software used in the creation process.

### **Guidance on the delivery and assessment of this Unit**

While this unit may be delivered as a 'stand alone' unit, it is envisaged that it will form an integral part of the HNC/D Sound Production group award and as such be taught in the context of the subject area. This unit is designed to be used as an introduction to the uses of audio within a multimedia context.

The unit should be delivered in such a way that it gives the candidates the choice of using a relevant multimedia artefact, which may have been created by the candidates within a corresponding or relevant unit. It is advisable that all candidates are given the opportunity to understand the uses of audio within a variety of multimedia-based artefacts. This can be demonstrated by lectures, research and practical use of such multimedia artefacts.

It would also be advisable for candidates to use an audio-free, pre-produced multimedia application as a reference for each Outcome, leading to the candidates' appliance of audio to this specific multimedia context.

Assessment will be carried out by the following:

- ◆ Outcome 1 will be presented in written report form. This should be carried out within a time specified by the assessor, and should not be carried out in a controlled environment. The candidates should use both course notes and research where necessary.
- ◆ Outcomes 2 and 3 will be based on candidates' practical performance. There is no designated time scale in which the candidates must have each outcome completed. However, Outcomes should be completed and assessed in chronological order. It is advisable that the candidates be allowed to keep a copy of the report for Outcome 1 for use as reference for the completion of Outcomes 2 and 3.

## **Higher National Unit specification: support notes (cont)**

**Unit title:** Audio for Multimedia: An Introduction

### **Open learning**

This unit could be delivered by open learning. However it would require planning by the centre to ensure the sufficiency and authenticity of candidate evidence. The candidate would also need access to the appropriate software and hardware required to complete Outcomes 2 and 3. For evidence purposes, it would be essential that the candidate supplied appropriate media containing all raw audio files used within Outcome 2, as well as the final finished product for Outcome 3.

For further information and advice please refer to *Assessment and Quality Assurance for Open and Distance Learning (SQA, February 2001 — publication code A1030)*.

### **Candidates with additional support needs**

This Unit specification is intended to ensure that there are no artificial barriers to learning or assessment. 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. For information on these, please refer to the SQA document *Guidance on Special Assessment Arrangements for Candidates with Additional Support Needs* (BA 2399, SQA, due 2004).

## **General information for candidates**

### **Unit title:** Audio for Multimedia: An Introduction

This unit is designed to give you an understanding of the use of audio within a multimedia context. It is primarily intended to give you the knowledge and practical understanding of the planning, development and use of audio within multimedia artefacts.

There are three main areas to cover within this unit, each of which is the subject of a separate Outcome. To begin with you will look at the general use of audio within a multimedia context. This will cover areas such as the appropriate use of audio to create a specific effect, where audio may be acquired from, both hardware and software requirements for the creation and use of audio within a multimedia context and the storage requirements for digital audio within a computer environment. You will then submit a report detailing how you intend to utilise all of these considerations when developing audio required for a chosen multimedia artefact.

Outcome 2 will require you to record and edit audio for use within your chosen multimedia artefact. You will be expected to use your response for Outcome 1 as a reference, and aid in your planning for this outcome. In completion of this outcome you should have developed practical knowledge and understanding of the hardware and software elements required to record and edit digital audio.

In Outcome 3 you will be required to use the audio, which you prepared for Outcome 2, and apply it appropriately to a multimedia artefact. You will then be required to submit the final product on suitable media to your assessor.

It is possible for you to utilise work created for other units, such as that based on the creation of a multimedia artefact in the completion of this unit.