Higher National Unit Specification

General information for centres

Unit title: Audio for Multimedia

Unit code: DR31 34

Unit purpose: This Unit is designed to develop candidates' skills in the design and use of audio within multimedia artefacts. The overall context of this Unit has been developed to give a detailed and practical insight into the planning, development, creation and application of audio use within a multimedia context. This Unit is intended for candidates hoping to pursue a career in audio production for multimedia artefacts.

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

1   Develop a pre-production plan for sound design to be used in a multimedia artefact.
2   Create musical sequences for use within a multimedia artefact.
3   Create sound effects for use within a multimedia artefact.
4   Apply, synchronise and process audio to a visual production.

Credit points and level: 2 HN Credits at SCQF level 7: (16 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.

Recommended prior knowledge and skills: Access to this Unit is at the discretion of the centre. Candidates should have an understanding and experience of digital audio within a multimedia environment. An understanding of music creation and digital audio recording and editing would also be beneficial. This may be evidenced by completion of the HN Unit: Audio for Multimedia: An Introduction (DJ1Y 33).

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: If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

Assessment: The Outcomes within this Unit must be assessed on an individual basis. It is recommended that the candidates should work through the Outcomes in order as all submitted work for Outcomes 2, 3 and 4 relate to the candidate's response to Outcome 1.

General information for centres (cont)

Unit title: Audio for Multimedia

The Unit as a whole should be approached in the form of a project, with the candidate demonstrating the relevant pre-production, production and post-production skills within the development of audio for multimedia. It is recommended that the assessor should utilise material in the form of a brief detailing 'the client's requirements' for audio within a particular multimedia artefact, when instructing the candidates for Outcome 1.

Evidence should take the following form:

♦   Outcome 1 — written report
♦   Outcomes 2, 3 and 4 — assessor checklists recording candidate's achievement
                    — an artefact recorded in the appropriate format

Higher National Unit specification: statement of standards

Unit title: Audio for Multimedia

Unit code: DR31 34

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

Develop a pre-production plan for sound design to be used in a multimedia artefact

Knowledge and/or skills

♦ Working to a brief
♦ Developing a project timescale
♦ Development and need of appropriate music within a multimedia artefact
♦ Development and need of appropriate sound effects within a multimedia artefact
♦ Use of appropriate audio formats within a multimedia artefact

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by providing a written report to a production brief. The report should illustrate the candidate's understanding of the pre-production stage in the development of an audio soundscape for multimedia artefacts by:

♦ analysing client's requirements for the creation and application of audio and sound design within a multimedia artefact
♦ creating a timescale for each area of production
♦ creating a plan detailing both the development and need for appropriate music and sound effects within a multimedia artefact
♦ explaining the appropriate audio formats for use within the multimedia artefact
♦ identification of file types and compression formats relevant to the specified multimedia context

Evidence for the knowledge and or skills within this Outcome will be provided by a written report to a production brief. The report should clearly identify each individual aspect of audio production for multimedia, with one section of the plan dedicated to each area of the Evidence Requirements. The pre-production plan should be a written report and should be completed within a time specified by the assessor. It should not be carried out in a controlled environment. The candidates should use both course notes and research where necessary.

Higher National Unit specification: statement of standards (cont)

Unit title: Audio for Multimedia

Assessment guidelines

This Outcome must be assessed on an individual basis.

The assessment for this Outcome is a written report undertaken as a pre-production plan, within a project covering the whole Unit, leading to the production stage for sound design specified in Outcomes 2, 3 and 4. It is essential that the candidates meet all areas within the Evidence Requirements before moving on to the remaining Outcomes.

Should there be ambiguity regarding a candidate's technical understanding or written 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

Create musical sequences for use within a multimedia artefact

Knowledge and/or skills

♦   Work effectively to a given brief
♦   Develop music for use in a multimedia artefact
♦   Utilise audio hardware
♦   Utilise audio production software
♦   Save and compress music for use within a multimedia artefact

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by undertaking a practical project showing appropriate use of music based hardware and software to develop music sequences.

Evidence will show that the candidate can:

♦   Effectively follow a brief by processing music sequences to enhance a multimedia artefact. This should include looped, single shot and musical 'sting' sequences.
♦   Set up and use audio hardware for the capture and playback of music sequences.
♦   Set up and use music production software for editing music sequences. This may be by demonstrating effective use of either appropriate MIDI or audio editing software. This should also include file handling and folder management within a computer environment.
♦   Save and compress music in the appropriate format for use within a specific multimedia artefact. This should include file format, compression settings and file destination.

This Outcome will be assessed on the basis that the candidate has detailed all musical requirements within the pre-production plan developed in Outcome 1. The candidate must provide at least three musical examples in the form of looped, single shot and musical 'sting' sequences.

Higher National Unit specification: statement of standards (cont)

Unit title: Audio for Multimedia

The music may be created by any music production techniques. This can include MIDI sequencing, audio sequencing, looped samples, library music CDs, live recordings and sound synthesis. The objective is to create appropriate music sequences that will enhance a multimedia artefact.

Reference should be made to the candidate's response to Outcome 1, to ensure all audio requirements stated in relation to the designated multimedia artefact have been met.

An assessor checklist must be used to record the candidate's performance.

All sequences must be collected/recorded in an appropriate finished format and retained as evidence.

Assessment guidelines

This Outcome must be assessed on an individual basis.

Should there be ambiguity regarding a candidate's technical understanding or written 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

Create sound effects for use within a multimedia artefact

Knowledge and/or skills

♦ Follow a project brief
♦ Capture sound using computer software and hardware
♦ Manipulate sound using computer software
♦ Save and compress sound effects for use within a multimedia artefact

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by undertaking a practical project showing appropriate use of audio based hardware and software to create original sound effects.

Evidence will show that the candidate can:

♦ Follow a project brief to create specific sound effects required for the sound design of a multimedia artefact.
♦ 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, sound synthesis, sampling.
♦ Manipulate sound using computer software to create the desired sound effect. This should include all forms of digital effects and processing, including time stretching, mixing of multiple audio files, reversing, and fading in/out.
♦ Save and compress audio in the appropriate format for use within a specific multimedia artefact. This should include file format, compression settings and file destination.

Unit title: Audio for Multimedia

This Outcome must be assessed on the basis that the candidate has a plan (created in Outcome 1) of all required sound effects needed for a multimedia artefact, as detailed in the brief. The sound effects created must be appropriate to all aspects of the plan. The candidate must, on completion of this Outcome, create five appropriate sound effects - these may include variations of sound effects created by the candidate.

Reference should be made to the candidate's plan ensuring all sound effect requirements for the multimedia artefact have been met.

The captured audio may be collected from any source necessary to meet the requirements stated in the plan. This may include compact disks, mini disk, location recordings and studio recordings. The final result must be recorded as digital audio onto a computer using the appropriate hardware and software means. All sound effects must be edited to the required specification using standard audio editing software.

An assessor checklist must be used to record the candidate's performance.

All sound effects must be collected/recorded in an appropriate finished format and retained as evidence.

Assessment guidelines

This Outcome must be assessed on an individual basis.

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

Outcome 4

Apply, synchronise and process audio to a visual production

Knowledge and/or skills

♦   Import and embed audio within a multimedia artefact
♦   Synchronise audio to visual media
♦   Process audio within an multimedia package

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by undertaking a practical project showing appropriate use of computer software programmes in the appliance of audio to a multimedia artefact.

Higher National Unit specification: statement of standards (cont)

Unit title: Audio for Multimedia

Evidence will show that the candidate can:

♦   Correctly import and embed audio to a multimedia artefact to create a multi-channel sound track. This should include file attachment, placement and folder creation.
♦   Effectively synchronise audio within a multimedia artefact. This should include the appliance of audio to specific time points within an audio visual artefact. This should include correct use of frame rates, audiovisual continuity, and steaming of audio files.
♦   Process audio within a multimedia software package. This should include all necessary audio processing to create a finished, integral audio soundtrack, eg mixing, panning, fading and effects processing.

Evidence should be presented in the form of the completed physical artefact, collected/recorded on an appropriate medium, which should then be reviewed and a checklist completed.

An assessor checklist should be used to record the candidate's performance on completion of each area of the project.

Assessment guidelines

This Outcome must be assessed on an individual basis.

Should there be ambiguity regarding a candidate's technical understanding or written 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: DR31 34

Unit title: Audio for Multimedia

Superclass category: KG

Date of publication: August 2005

Version: 02

History of changes:

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

Source: SQA

Higher National Unit specification: support notes

Unit title: Audio for Multimedia

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

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 80 hours.

Guidance on the content and context for this Unit

This Unit is primarily intended to develop the candidate's skills in the design and use of audio within multimedia artefacts. The overall structure of the Unit has been developed to give candidates both an insight into and experience of all stages of audio production and application to a multimedia artefact. The candidate should, on completion of the Unit, be able to confidently and appropriately follow a design brief for the requirements of audio within a multimedia artefact by creating a plan, musical soundtrack, sound effects and appropriately applying all audio to a multimedia artefact.

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 develop the candidate's understanding further, to a competent and professional level, of both the creation and appliance of audio within a specific context.

Although it is recommended that candidates should have an understanding of the general use of audio within a variety of commercially available multimedia genres, 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. It would be advisable for candidates to use an audio-free, pre-produced multimedia application as a reference for each Outcome, leading to their appliance of audio to this specific multimedia context.

Outcome 1 looks at the planning of audio's use within a specific multimedia artefact. Candidates should develop a plan, to a given brief, meeting all Performance Criteria.

They should be encouraged to think about the following:

♦   the client's requirements for audio as detailed in the brief
♦   the intended target audience
♦   musical requirements covering, for example, style, format, length and appliance
♦   sound effect requirements covering, for example, source, format, length and appliance
♦   dedicated timescale for each area of the sound design process

Outcome 2 looks at the creation of music for a multimedia artefact. Candidates should have all the necessary planning, preparation and understanding to complete this Outcome. The candidates should have detailed in a plan exactly what effect they hope to achieve and how they will go about creating music for the artefact. This should be taken into account when selecting and editing music needed for this Outcome.

Higher National Unit specification: support notes (cont)

Unit title: Audio for Multimedia

Outcome 3 looks at the creation of sound effects for a multimedia artefact. Candidates should have all the necessary planning, preparation and understanding to complete this Outcome. The candidates should have detailed in a plan exactly what effect they hope to achieve and how they will go about creating sound effects for the artefact. This should be taken into account when selecting and editing sound effects needed for this Outcome. Spoken dialogue may also be considered as a sound effect.

Outcome 4 looks at the appliance of audio to a multimedia artefact. Similar to Outcomes 2 and 3, the candidates should already have all necessary preparation written and detailed within a plan for Outcome 1. Candidates should create a finished soundtrack meeting the requirements of the brief.

As candidates have to apply the prepared audio within a multimedia artefact, they 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

This is an optional Unit in the framework for the HND Sound Production Group Award, which is primarily designed to provide candidates with the technical and professional knowledge and skills related to a specific occupational area. The Unit is designed to be used as an insight into each stage of the complete production for audio within a multimedia context. It would be expected that candidates might, on completion of this Unit, follow a career in the production and design of audio for multimedia artefacts.

The Unit should be delivered in the form of a project. It will be necessary for the candidate to receive both a production briefing and a physical multimedia artefact as chosen by the assessor. This will ensure that, both practically and theoretically, the assessor can oversee the distribution of specific multimedia artefacts, which are easily accessed by them. The objective for this Unit is for candidates to follow a design brief given to them based on a specific multimedia artefact which they have had no prior access to, thus enabling them to approach the project in a similar way to a professional 'real life' situation.

Assessment should be carried out by three instruments of assessment. Outcome 1 will be assessed by the production of a written plan in response to a production brief. 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, 3 and 4 will be assessed on the candidate's practical performance. The timescale in which the candidate must have each Outcome completed should be specified by the client themselves, within their production plan. It is advisory that the candidate be allowed to keep a copy of the plan written for Outcome 1 for use as reference for the completion of Outcomes 2, 3 and 4.

Open learning

It may be possible for this Unit to be completed on an open learning basis, although centres will need to devise and approve methods for ensuring the validity of submitted work that contributes to assessment evidence.

Higher National Unit specification: support notes (cont)

Unit title: Audio for Multimedia

For further information and advice please refer to *Assessment and Quality Assurance for Open and Distance Learning (SQA, — 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 Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs,* which is available on the SQA website **www.sqa.org.uk**.

General information for candidates

Unit title: Audio for Multimedia

This Unit is designed to give you a practical understanding of the planning, production and appliance of music and sound effects within a multimedia artefact. If you do have prior knowledge or experience of multimedia development you should be able to make good use of it during your study of this Unit. This Unit should give you all the experience and skills required to follow a brief and create an appropriate soundscape for a designated multimedia artefact. You will also develop skills in the planning for such a project and how to manage your time effectively during each stage of production.

There are four main areas to cover within this Unit, each of which is subject of a separate Outcome.

In Outcome 1 you will be required to create a plan for the design and application of audio for use within a specific multimedia artefact — all requirements will be detailed in a brief. You will have to consider all areas of the production of audio for this particular multimedia artefact; this will include analysing the client's requirements, creating a production timescale and planning all areas within the design, creation and appliance of both appropriate music and sound effects. You will then be required to submit a plan detailing how you intend to utilise all of these considerations when developing audio required for the given multimedia artefact.

In Outcome 2 you will be required to create music for use within the multimedia artefact. You will be expected to use your response to Outcome 1 as a reference for your production of music for this Outcome. On completion of this Outcome you should have developed practical knowledge and understanding of the hardware and software elements required to create music for multimedia. You should also have developed the skill of accurately and appropriately producing music to a brief for a specific multimedia artefact.

Outcome 3 will require you to create sound effects for use within the multimedia artefact. This Outcome will be structured similar to Outcome 2 — only this time you will be using your skills to create appropriate sound effects.

Outcome 4 you will be required to use the audio, which you created for Outcomes 2 and 3, and apply it appropriately to the given multimedia artefact, following closely both your plan and the design brief. You will then be required to submit the final product on suitable media to your assessor.