

## Higher National Unit Specification

### General information for centres

**Unit title:** Broadcast Audio

**Unit code:** DR32 34

**Unit purpose:** This Unit is designed to give the candidate an introduction to the processes/techniques involved in setting up and operating sound recording equipment in the context of broadcast audio production. The overall structure of the Unit will provide candidates with both theoretical and practical experience of the application of equipment within a range of broadcast contexts. It is primarily intended for candidates who are involved in aspects of sound engineering, but who have no great prior knowledge of the broadcast environment.

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

- 1 Explain the features of audio production for various broadcast forms.
- 2 Capture sound for use in broadcast audio.
- 3 Edit and mix audio for a range of broadcast applications.
- 4 Output audio for a range of broadcast applications.

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

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

**Recommended prior knowledge and skills:** Access to this Unit is at the discretion of the centre. However, it would be beneficial if candidates had some experience of sound recording and sound theory. 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:** If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

**Assessment:** This Unit, whilst containing a mix of theoretical knowledge and practical skills, must have the emphasis on the practical implementation of skills and techniques.

## **General information for centres (cont)**

### **Unit title:** Broadcast Audio

Outcome 1 should be assessed, separately, by means of a written investigative report. This should be submitted to a given deadline and should give opportunities for candidates to demonstrate knowledge and understanding of a sample of the various and peculiar nature of a range of broadcast production situations. These will be from a range of possible production types to be found in live and pre-produced radio, television and new-media broadcast forms.

Outcomes 2, 3 and 4 could be combined into a single assessable product. It is suggested that candidates might be able to work in small teams to undertake this work but they should each be able to show significant contributions made to the processes of planning, capturing, editing and making the audio ready for broadcast. The work in these areas should be verified by means of lecturer checklists supported by documentation used in the production process as well as an evaluation by the candidate of their contribution to the various stages of the production process.

Centres may assess under controlled conditions on certain aspects of this Unit eg a specific time period allocated to the task of assembling, testing and fault-finding, although it would be better if the evidence was gathered within as realistic a production setting as possible. All work should be done with due consideration given to health and safety.

## Higher National Unit specification: statement of standards

**Unit title:** Broadcast Audio

**Unit code:** DR32 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

Explain the features of audio production for various broadcast forms

#### Knowledge and/or skills

- ◆ Role of personnel
- ◆ Formats used to deliver audio to the consumer
- ◆ Formats and conventions used in live and pre-recorded radio programming
- ◆ Formats and techniques used
  - in production of audio for television
  - in production of radio programmes
  - to make audio work in the delivery of new media

#### Evidence Requirements

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

- ◆ explain the role of personnel involved in the production of audio for broadcast
- ◆ explain current delivery formats from mono to surround formats
- ◆ explain issues in compression and encoding audio for broadcast
- ◆ explain the technical restrictions placed on audio reproduction by the various transmission methods
- ◆ explain the practices in place in a range of typical radio and television production scenarios

Evidence will be generated by submission of an investigative report covering a minimum of two forms of broadcasting, at least three programme scenarios and a range of possible delivery methods. The report will comprehensively outline the chosen production scenarios, the general types of equipment which would allow the job to be done, the roles of production personnel in producing broadcast audio in these situations and the format options the broadcasters have for this audio. The report should be submitted to a given deadline.

#### Assessment guidelines

The assessment for this Outcome is concerned with the candidate developing and demonstrating knowledge and understanding of a sample of broadcast production situations.

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

### **Unit title:** Broadcast Audio

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 sound for use in broadcast audio

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

- ◆ Basic sound theory
- ◆ Basic sound equipment applications
- ◆ Location sound practice
- ◆ Studio sound practice

#### **Evidence Requirements**

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

- ◆ produce a plan for the acquisition of audio for a given production brief
- ◆ select appropriate equipment for a range of broadcast audio applications
- ◆ assemble equipment to meet the requirements of a given brief
- ◆ operate equipment effectively to produce satisfactory recording quality
- ◆ deliver audio which meets the requirements of the given broadcast situation
- ◆ slate and log all recordings adequately and accurately
- ◆ observe health and safety legislation when working as an individual or part of a team
- ◆ operate effectively as an individual and as a member of a team
- ◆ record all information on mark-up sheets as required
- ◆ handle all equipment safely and professionally before, during and after the recording

Candidates should be encouraged to work to a production brief provided by either the assessor or by members of the team with whom they are working. They should keep all documentation from the planning stage to the completion of acquisition, and meet all deadlines set. A review of the process should be submitted either after this stage or as part of the project report submitted on completion of the broadcast product.

An observation checklist should be used to record achievement of each of the evidence requirements.

#### **Assessment guidelines**

This Outcome lends itself to a range of assessment situations. Assessment should be in as practical and realistic a situation as possible to sample the candidate's practical abilities.

It would be possible to combine this assessment with the assessment of Outcomes 3 and 4 to produce a single broadcast product. See Outcome 4 below.

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

### **Unit title:** Broadcast Audio

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**

Edit and mix audio for a range of broadcast applications

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

- ◆ Transfer of location sounds for editing or insertion into live broadcast
- ◆ Editing and mixing to meet the brief or programme plan
- ◆ Control of sound by use of audio effects and processing

#### **Evidence Requirements**

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

- ◆ accurately transfer audio recordings to the chosen editing or playout platform
- ◆ accurately edit, manipulate, and combine sounds to meet the requirements of the production
- ◆ ensure audio is positioned in time to match the script or pictures
- ◆ accurately mix the various sound sources to provide a coherent end product which meets the requirements of the production or programme plan
- ◆ make correct use of a range of audio effects or processors to control level and equalisation in the context of the desired broadcast format

Candidates should be encouraged to work to a production brief provided either by the assessor or by members of the team with whom they are working. They should keep all documentation and meet all deadlines set. A review of the process should be submitted either after this stage or as part of the project report submitted on completion of the broadcast product.

An observation checklist should be used to record achievement of each of the evidence requirements.

#### **Assessment guidelines**

This Outcome lends itself to a range of assessment situations. Assessment should be in as practical and realistic a situation as possible to sample the candidate's practical abilities.

It is possible to combine with the assessment of Outcomes 2 and 4 to produce a single broadcast product. See Outcome 4 below.

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.

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

**Unit title:** Broadcast Audio

### Outcome 4

Output audio for a range of broadcast applications

#### Knowledge and/or skills

- ◆ Deliver completed broadcast audio products
- ◆ Format requirements of broadcasters
- ◆ Alternative format options
- ◆ Documentation meeting the requirements of broadcasters and copyright

#### Evidence Requirements

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

- ◆ deliver a completed audio artefact with correct documentation
- ◆ deliver audio artefact with all required line up, test and log information
- ◆ produce the completed audio product in a broadcast safe format
- ◆ deliver an optional format of the audio artefact to meet possible alternative broadcast format requirements
- ◆ ensure that copyright information is provided and legal requirements are adhered to

Evidence for this Outcome should include the finished broadcast product. Candidates should be encouraged to work to complete a production brief provided either by the assessor or by members of the team with whom they are working. They should keep all documentation and meet all deadlines set. A review of the process should be submitted either after this stage or as part of the project report submitted on completion of the broadcast product.

An observation checklist should be used to record achievement of each of the Evidence Requirements.

#### Assessment guidelines

This Outcome lends itself to a range of assessment situations. Assessment should be in as practical and realistic a situation as possible to sample the candidate's practical abilities.

The assessment of the Outcome could also be combined with Outcomes 2 and 3 to produce a single broadcast product, or separate assessments for each Outcome. A single assessment event would ensure the candidate's ability to operate any equipment safely and efficiently in any given situation. Where required evidence is not available through practical activities written or oral evidence may be generated to supplement the observation checklists.

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:** DR32 34

**Unit title:** Broadcast Audio

**Superclass category:** KG

**Date of publication:** August 2005

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### History of changes:

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

**Source:** SQA

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## Higher National Unit specification: support notes

### Unit title: Broadcast Audio

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 equipment and techniques employed within various broadcast scenarios. The overall structure of the Unit has been developed to give candidates both theoretical and practical experience of the particular contexts of a range of broadcast productions. The candidate should, on completion of the Unit, be able to confidently, safely and appropriately plan, prepare and produce audio in such broadcast situations.

It is possible that some candidates may have prior experience of the use of audio for broadcast situations. This Unit should be used as a tool to further develop the candidates' understanding of the range of applications to be found. Though teamwork is of great value to this subject each candidate must have sufficient practice at any assessable task before being assessed.

It is essential that Health and Safety legislation be complied with throughout this Unit. The concept of Risk Assessment should be introduced but is not assessable. Centres and candidates should be aware of the current legislation applicable to the following areas: Noise at Work, Electricity at Work, Manual Handling and Working at Height. Candidates should be encouraged to research the legislation for themselves. They will find details of legislation on the Health and Safety Executive's website at <http://www.hse.gov.uk>.

**Outcome 1** looks at the basic practices, techniques and production situations which fall under the heading of "broadcast audio". It is to be expected that candidates will be given an overview of a range of broadcast production situations covering both radio and television production, as well as new media where appropriate. The production situations in radio should include studio based live and pre-recorded music programmes using recorded and session audio; radio dramas; talk and news programmes using a range of outside lines such as ISDN and telco as well as interviews and vox-pops; and radio outside broadcasts such as sports commentaries. The television production scenarios should include a range from ENG, through documentary and reality, live sport, live audience shows, to studio and location produced drama. They should also cover post-production scenarios such as ADR, foley sound, and other sweetening techniques. The new media opportunities could include either dedicated webcasts or the reformatting and encoding of existing productions for simulcast or re-broadcast opportunities. The question of formats used and the developments occurring in areas such as streaming technologies, Broadcast Wave file types and surround sound delivery could all be covered within this Outcome.

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

### Unit title: Broadcast Audio

Candidates should be made aware of matters relating to frequency response and dynamic range of various delivery formats and compression and encoding technologies. They should also be made aware of the wide range of recording formats which are in use or which would now no longer be generally accepted as “broadcast standard”. These formats should include DV, Beta, ¼” tape, cassette, minidisk, hard disc and any others which are felt to be appropriate. The use of a range of microphones should be covered such as omni-directional handheld, shotgun, on-camera, lip-ribbon and radio systems. A range of studio mixers and location mixing equipment should be covered, with the facilities available on these being explained — this should include the typical audio facilities of broadcast video cameras. The use of timecode on location should be covered even if the candidates will not be using timecode to lock audio and video tapes in their production.

Through the exposition of techniques, practices, and equipment related to this Outcome, candidates will be made aware of the extent of the audio role in broadcast production and the number and type of job opportunities available to the audio engineer in broadcasting. It is anticipated that with the appropriate support materials this could be covered in the first 3 or 4 weeks of the Unit, after which the candidates will be encouraged to take on a research project for which they will select some broadcast shows which they will use as the basis of case study examples demonstrating their knowledge across the range of Outcome 1.

**Outcome 2** requires candidates to participate in the practical aspects of acquiring audio which will be used in a broadcast product. Based on a brief that will either be provided by the tutor or be the result of a practical project which the candidates might be involved in, candidates will produce a plan of action, select equipment appropriate to the task at hand, and capture audio for the production. The range of audio captured should be comprehensive enough to allow options at the editing and mixing stages — an example being the capturing of location atmosphere audio tracks. They should analyse the quality of the captured audio with the requirements of the brief in mind. All audio should be logged and activities noted as appropriate. Checklists should be used to record the production activities of the candidates and ensure safe practices are followed.

**Outcome 3** requires candidates to participate in the transfer and utilisation of captured audio for use in a broadcast product. The audio which has been acquired will be used to match the requirements of the programme, script or producer’s requirements. A range of techniques should be used to provide audio which delivers technical quality and programme feel. Mixing techniques should demonstrate the appropriate use of levels, effects, editing and timing. Where the audio is being used with video, candidates should ensure synchronisation is maintained with actions which are seen on screen. In all circumstances the audio should match the specified length in the brief. Candidates should analyse the quality of the manipulated audio with the requirements of the brief in mind. All audio should be logged and activities noted as appropriate. Checklists should be used to record the production activities of the candidates and ensure safe practices are followed.

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

### Unit title: Broadcast Audio

**Outcome 4** requires candidates to complete and deliver a broadcast product. Based on the brief, there will be format requirements which must be met, along with paperwork which covers the delivery information required in the specific broadcast format, as well as copyright issues. At this stage candidates might be encouraged to explore the production of a second format for the delivery of the product whether this be a compressed/encoded version of a radio production, or a Music and Effects version of a television programme. They should analyse the quality of the completed programme with the requirements of the brief in mind. All audio should be logged and activities noted as appropriate. Checklists should be used to record the production activities of the candidates and ensure safe practices are followed.

A report on each of the stages of the production should be submitted with all checklists. The report should include an evaluation of the finished product relative to the brief and a self evaluation of the candidate's contribution to the production process.

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

While this Unit may be delivered as a 'standalone' 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 an introduction to the uses of audio and recording techniques in the broadcasting context. Candidates will require training in the use of the specific equipment used by the centre to undertake this Unit.

The Unit should be delivered in such a way that it gives candidates the chance to perform broadcast audio production tasks in the context of a real production situation. If this is not possible, simulation events should emulate the problems and timescales of the real world as closely as possible to ensure the correct context.

Assessment will be carried out as follows:

- ◆ Outcome 1 can be presented as an investigative report submitted to a given deadline.
- ◆ Outcomes 2, 3 and 4 will be based on the submission of audio files from production, mixing and submission stages of the project. These will be supported by a single report evaluating these stages relative to the brief and the candidate's contribution to the production — there could possibly be separate reports for each stage of the production. Health and safety aspects of the candidate's behaviour, confirmation that deadlines were met and the adequacy of the submission format can be verified by lecturer checklists for the various Outcomes.

### Open learning

This Unit could be delivered by open or distance learning. However it would require planning by the centre to ensure the sufficiency and authenticity of candidate evidence. Delivering centres will be responsible for ensuring authenticity of candidate's work. Video evidence of performance opportunities with witness statements might support assessment of Outcomes 2, 3 and 4.

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

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

**Unit title:** Broadcast Audio

### **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](http://www.sqa.org.uk).

## General information for candidates

### Unit title: Broadcast Audio

This Unit is primarily intended to introduce you to the use of audio equipment and techniques employed within various broadcast scenarios. The overall structure of the Unit has been developed to give you both theoretical and practical experience of the particular contexts of a range of broadcast productions. You should, on completion of the Unit, be able to confidently, safely and appropriately plan, prepare and produce audio in such broadcast situations.

It is possible that you may have prior experience of the use of audio for broadcast production. This Unit should be used as a tool to further develop your understanding of the range of applications to be found and practices in use. Though teamwork is of great value to this subject you must have sufficient practice at any assessable task before being assessed.

On completion of the Unit you will be able to:

- 1 Explain the features of audio production for various broadcast forms.
- 2 Capture sound for use in broadcast audio.
- 3 Edit and mix audio for a range of broadcast applications.
- 4 Output audio for a range of broadcast applications.

In Outcome 1 you will learn about a range of different broadcast productions and the techniques and practices in their audio production. This will give you an overview of the type of roles involved and the equipment which is applied to different tasks. Your knowledge will be assessed by the submission of a research report based on a range of broadcast audio situations.

In Outcome 2 you will acquire audio in a studio or location environment which will meet the requirements of an agreed brief. A comprehensive range of audio artefacts should be compiled to allow for options at the edit and manipulation stages. This Outcome will be assessed by the audio produced, lecturer checklists and a short evaluation report which may be part of an overall process evaluation.

In Outcome 3 you will edit and manipulate audio to meet the requirements of the agreed brief. A comprehensive range of audio techniques should be used to demonstrate understanding of the production situation. You should be able to demonstrate the ability to manage audio in respect of time and timing, creative use of equalisation and desk facilities, and utilisation of compression both creatively and for output management. This Outcome will be assessed by the audio produced, lecturer checklists and a short evaluation report which may be part of an overall process evaluation.

In Outcome 4 you will deliver a finished product which meets the requirements of the brief. This will be of the right standard, be correctly formatted and have all appropriate paperwork required by broadcasters and meet the needs of copyright regulations. This Outcome will be assessed by the audio produced, lecturer checklists and a short evaluation report which may be part of an overall process evaluation.

The Unit should be delivered in such a way that it gives you the chance to perform audio tasks for a real project. If this is not possible simulation events should emulate the problems and timescales of the real world as closely as possible to ensure the correct context.