



## Higher National Unit specification

### General information for centres

**Unit title:** Audio Visual Technologies for Performance

**Unit code:** F387 34

**Unit purpose:** This Unit is designed to provide candidates with practical experience and an understanding of the use of Audio Visual (AV) technologies in live performance events. It is primarily intended for candidates who wish to work as technical practitioners within the theatre and the wider entertainment industry.

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

- 1 Source and prepare AV materials for a performance.
- 2 Assemble an AV playback system for use in a performance.
- 3 Rig and focus a video projector for use in a performance.
- 4 Operate AV playback in a performance.

**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. However, it is recommended that candidates possess a basic knowledge and understanding of the technical roles within a theatrical production team. This may be evidenced by the achievement of one or more of the following NQ Units:

D12T 12      *Lighting: In-House Production*  
D12V 12      *Lighting: Touring Production*

**Core Skills:** There are opportunities to develop the Core Skills of *Working with Others*, *Numeracy*, *Problem Solving*, *Communication*, and *Information Technology* at SCQF level 5 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. This Unit was developed within the framework of the HNC Technical Theatre.

**Assessment:** This Unit should be assessed primarily through practical preparation of AV materials and their use as effects in a performance event. If there are insufficient opportunities in performances a class-based practical project should be offered to simulate the performance conditions. Assessment of Outcomes 1, 2, 3 and 4 could be integrated.

## **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**

Source and prepare AV materials for a performance

#### **Knowledge and/or Skills**

- ◆ Sources of AV material
- ◆ Formats of AV material
- ◆ Processes of gathering AV material
- ◆ Basic digital image editing
- ◆ Basic digital video editing
- ◆ Techniques for exporting prepared AV material

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by sourcing and preparing materials during the pre-production phase of a performance. The candidates should be given a brief, describing at least three AV effects required for a performance. One of the effects should use audio material as well as visual material. At least one effect should use still images, and at least one effect should use moving images.

A candidate's response can be judged to be satisfactory where the evidence indicates that the candidate is able to:

- ◆ compile a list of AV materials required for a performance, from a given brief
- ◆ describe at least three potential sources of AV materials
- ◆ explain the use of at least three different visual formats for AV materials
- ◆ explain the use of at least two different audio formats for AV materials
- ◆ gather the AV materials needed to create the effects described in the brief
- ◆ perform basic editing of images
- ◆ perform basic editing of video material
- ◆ compile and export AV materials into a suitable format for playback in the performance

#### **Assessment Guidelines**

The assessment of this Outcome could be integrated with the assessment for Outcomes 2, 3 and 4. The performance event could be a drama, musical or dance production. Observation checklists could be used to record evidence of candidate performance.

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

**Unit title:** Audio Visual Technologies for Performance

### **Outcome 2**

Assemble an AV playback system for use in a performance

#### **Knowledge and/or Skills**

- ◆ Video playback sources
- ◆ Video mixers
- ◆ Computer based video playback systems
- ◆ Cables and connectors
- ◆ Schematics and system diagrams
- ◆ AV playback set-up techniques
- ◆ Health and Safety procedures

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by undertaking the role of AV technician from the pre-production phase up to and including the technical rehearsal of a performance event.

A candidate's response can be judged to be satisfactory where the evidence is sufficient to meet the requirements of observation checklists that indicate that the candidate is able to:

- ◆ explain the use of two different video playback sources
- ◆ explain the use of a video mixer
- ◆ explain the use of one example of a computer based video system
- ◆ explain the use of the most common audio and video cables and connectors
- ◆ use simple schematics and system diagrams to plan a basic two-source AV playback system
- ◆ set-up and cable a two-source AV playback system, mixing two sources to one output device
- ◆ apply Health and Safety procedures in line with professional best practice

#### **Assessment Guidelines**

The assessment of this Outcome could be integrated with the assessment for Outcomes 1, 3 and 4. The playback system could use the materials created in Outcome 1, and may be connected to the projector rigged in Outcome 3 for use in Outcome 4, allowing integration of assessment across all Outcomes. Observational checklists could be used to record evidence of candidate performance on an on-going basis throughout the pre-production phase, up to and including the technical rehearsal, of a performance event. The performance could be a drama, musical or dance production.

### **Outcome 3**

Rig and focus a video projector for use in a performance

#### **Knowledge and/or Skills**

- ◆ Video projectors
- ◆ Techniques for determining image size and projector distance
- ◆ Projector placement issues

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

### **Unit title:** Audio Visual Technologies for Performance

- ◆ Projector brightness issues
- ◆ Projection surfaces
- ◆ Rigging, cabling and de-rigging of projectors
- ◆ Focusing and masking of projectors
- ◆ Health and Safety procedures

### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills listed above by undertaking the role of AV technician during the rigging and focusing phase of a performance event.

A candidate's response can be judged to be satisfactory where the evidence is sufficient to meet the requirements of observation checklists that indicate that the candidate is able to:

- ◆ explain the use of video projectors, comparing at least two different models
- ◆ demonstrate how to determine image size and projector distance using scale drawings
- ◆ demonstrate how to determine image size and projector distance using online calculation tools
- ◆ explain projector placement issues such as choice of front or back projection and keystoneing
- ◆ explain projector brightness issues when used with theatre lighting
- ◆ explain the use of at least two types of projection surface
- ◆ rig, cable and de-rig a video projector
- ◆ focus a video projector and add a blackout mask
- ◆ apply Health and Safety procedures in line with professional best practice

### **Assessment Guidelines**

The assessment of this Outcome could be integrated with the assessment for Outcomes 1, 2, and 4. The rigging and cabling of the projector could integrate with the assessment of Outcome 2, as the projector could be cabled up to the playback system described in that Outcome. Likewise, the projector can be used in the candidate's work in Outcome 4. Observational checklists could be used to record evidence of candidate performance on an on-going basis throughout the rigging and focusing phase of a performance event. The performance event could be a drama, musical or dance production.

## **Outcome 4**

Operate AV playback in a performance

### **Knowledge and/or Skills**

- ◆ AV cue sheet
- ◆ Pre-show checks
- ◆ Operating AV cues
- ◆ Health and Safety procedures

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

**Unit title:** Audio Visual Technologies for Performance

### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by undertaking the role of AV technician during the dress rehearsals and performance(s) of a production.

A candidate's response can be judged to be satisfactory where the evidence is sufficient to meet the requirements of observation checklists that indicate that the candidate is able to:

- ◆ demonstrate plotting of at least three AV cues
- ◆ create an AV cue sheet recording at least three AV cues
- ◆ create and use a pre-show checklist before the performance
- ◆ operate AV for at least one performance using cue sheets
- ◆ apply Health and Safety procedures in line with professional best practice

### **Assessment Guidelines**

The assessment of this Outcome could be integrated with the assessment for Outcomes 1, 2 and 3. The video projector used in Outcome 3 can also be used in the candidate's work in Outcome 4.

Observational checklists could be used to record evidence of candidate performance on an on-going basis throughout the dress rehearsals and performance(s) of a production. The performance event could be a drama, musical or dance production.

## Administrative Information

**Unit code:** F387 34

**Unit title:** Audio Visual Technologies for Performance

**Superclass category:** KG

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### History of changes:

Version	Description of change	Date

**Source:** SQA

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

### **Unit title:** Audio Visual Technologies for Performance

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 intended to develop candidates' Audio Visual technology skills throughout the various production phases of a live performance. It is also intended to enable candidates to develop skills which would be useful when seeking career development within the theatre industry. The Unit is designed to help candidates develop the skills of stage AV technicians. It may be of particular interest to technicians currently working in theatre who wish to develop their AV technology skills.

Candidates will learn to gather and prepare AV materials; design and implement playback systems for these materials; and use the playback system to deliver the AV materials as effects in a performance.

Where possible, the Unit avoids stating specific formats and technologies. This is to allow centres flexibility in delivery given the broad range of specific technologies available. It also serves to future proof the Unit in a rapidly changing technological field. However, it is suggested that the following equipment may be used as a starting point in planning delivery of the Unit:

- ◆ a video projector
- ◆ a video mixer
- ◆ a DVD player
- ◆ a computer with basic image and video editing software, DVD authoring software and presentation software

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

This Unit is likely to be an optional Unit in the HNC Technical Theatre Group Award. It is primarily intended to provide candidates with the necessary skills to carry out various tasks within the role of Stage AV Technician. The Unit may be incorporated within public performance productions which will allow candidates to experience 'real' situations. If no live performance is available for candidates to work on, or in the event of candidates needing to re-attempt all or part of the Unit the candidates could also develop skills in a simulated exercise which tries to closely emulate the conditions of a live performance.

Alternatively, candidates could develop skills in a specific Audio Visual performance, such as a *Son-et-Lumière* style event, and such an event would also offer opportunities for development of stage lighting skills.

Assessment should be on an on-going basis, where relevant, throughout the delivery of the Unit and at times when the tutor feels that the candidate is ready to be assessed. An evaluation of the process should be submitted before the final interview. On-going assessment of practical activity should be recorded using observation checklists.

Assessment of Outcomes 1, 2, 3 and 4 could be integrated.

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

**Unit title:** Audio Visual Technologies for Performance

### *Opportunities for developing Core Skills*

Opportunities could be taken to develop the skills of oral and written communication in discussions with production team, writing and by email throughout all Outcomes. Candidates will be able to develop their *Problem Solving (Critical Thinking)* by participating in production planning meetings and discussions and communicate with their director and fellow team members in rehearsals and during shows. Candidates will also use rehearsal notes and other reference materials in their planning and create their own lists, notes and cue sheets which could involve use of *Numeracy (Working with Numbers)* and *Information Technology*.

If candidates deal with scale drawings, cue numbers, and timings of video materials then they will have opportunities to develop the Core Skill of *Numeracy (Working with Numbers)* at SCQF level 5.

If the candidates design the AV playback system they will be dealing with choices of equipment, connections between equipment and systematic testing and fault finding of the playback system. These tasks will give the candidates the opportunities to develop the Core Skill of *Problem Solving (Critical Thinking)* at SCQF level 5.

If candidates use paperwork such as rehearsal notes, rig plans, equipment lists, cue lists, AV schematics and scale drawings then they will have opportunities to develop the Core Skill of *Communication (Written)* at SCQF level 5.

If candidates deal with production issues which will often be addressed orally in meetings and informal discussions, and if candidates use professional verbal communication techniques during technical rehearsals and shows, then they will have opportunities to develop the Core Skill of *Communication (Oral)* at SCQF level 5.

If candidates use CAD programmes, as well as producing paperwork on computers, and if candidates use online calculation tools for determining projector placement, and use computer systems for editing of images, audio and video, they will have opportunities to develop the Core Skill of *Information Technology* at SCQF level 5.

As team work is integral to the role of technician within a theatrical environment, the candidate will have opportunities to develop the Core Skill of *Working with Others* at SCQF level 5.

### **Open learning**

The Outcomes in this Unit rely on developing skills through participation during and throughout the phases of a production. It requires communication with production personnel on an active and on-going basis, and physical participation in the practical aspects of rigging, focusing and operation. Therefore opportunities for distance learning are extremely limited. Centres may, however find it possible to develop solutions, provided all Unit and verification requirements are met in full.

Technological advances may make the possibility of such creative solutions more widespread in the future.



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

**Unit title:** Audio Visual Technologies for Performance

### **Candidates with disabilities and/or additional support needs**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* ([www.sqa.org.uk](http://www.sqa.org.uk)).

## General information for candidates

### Unit title: Audio Visual Technologies for Performance

This Unit is primarily intended to develop your skills in the use of Audio Visual (AV) technologies within a theatrical environment.

There are four Outcomes in the Unit:

Outcome 1: Source and prepare AV materials for a performance. In this Outcome, you will source and prepare AV materials for use in a performance. You will learn about different formats of AV materials and where to find them. You will learn basic digital image editing and digital video editing techniques to prepare the material, and ways to take the material out of the computer in a form that is ready for use in a performance.

Outcome 2: Assemble an AV playback system for use in a performance. In this Outcome, you will learn about the equipment commonly used to playback AV material in performances, and how a video signal can be mixed with another. You will learn about computer based playback of AV materials, and about how to connect all the equipment together. You will draw diagrams showing the various pieces of equipment and the connections between them, and using such diagrams you will learn how to plan and set up a simple AV playback system for a performance.

Outcome 3: Rig and focus a video projector for use in a performance. In this Outcome, you will learn how to use video projectors. You will learn how to decide where best to position a projector, the types of surface you may be projecting onto and what issues arise when using a projector under theatre lighting. You will learn how to safely rig and focus the projector.

Outcome 4: Operate AV playback in a performance. In this Outcome, you will plot AV cues on an AV cue sheet. You will prepare a pre-show checklist and use this to prepare for each performance. You will learn how to operate AV by running an AV playback system during a performance.

In each of the four Outcomes you will work safely under the current Health and Safety laws and use best practice from the profession.

Your work will be assessed on an on-going basis and assessment will involve the observation of your practical abilities in carrying out the tasks above in the context of a theatrical, musical or dance production.