



Higher National Unit specification: general information

Unit title: Stage Lighting and Technology

Unit code: FA03 35

Superclass: LE

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Unit purpose

This Unit is designed to enable candidates to develop stage lighting skills using current technology, incorporating special effects and stage electrics.

This Unit enables the candidate to co-ordinate the lighting process for a production, work safely and diagnose faults within a lighting system.

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

- 1 Implement stage lighting requirements.
- 2 Demonstrate safe working practices.
- 3 Co-ordinate stage lighting team throughout the production process.
- 4 Evaluate own contribution to the stage lighting process.

Recommended prior knowledge and skills

Entry to this Unit is at the discretion of the delivering centre, however it would be beneficial if candidates had completed Unit F388 34 *Stage Lighting: Rigging, Focusing and Operation* before undertaking this Unit.

Credit points and level

2 Higher National Unit 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.*

General information (cont)

Core Skills

There are opportunities to develop the Core Skills of *Working with Others*, *Numeracy*, *Problem Solving*, *Communication* and *ICT*, all at SCQF level 6 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 could be assessed through a combination of observation checklists for practical tasks, written or oral report for fault diagnosis and safe working practices and a self-evaluation assessment.

Higher National Unit specification: statement of standards

Unit title: Stage Lighting and Technology

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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

Implement stage lighting requirements.

Knowledge and/or Skills

- ◆ Lighting systems and technology
- ◆ Stage electrics
- ◆ Rigging techniques
- ◆ Cabling
- ◆ Programming DMX fixtures
- ◆ Fault finding
- ◆ Health and Safety requirements

Evidence Requirements

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

- ◆ calculate power and cable requirements for a lighting rig
- ◆ set up stage lighting equipment according to specification
- ◆ programme DMX fixtures within a stage lighting system
- ◆ diagnose and rectify faults within a stage lighting system
- ◆ comply with all relevant Health and Safety requirements

Assessment Guidelines

This Outcome could be assessed through the use of an observation checklist to record the candidates ability to carry out the practical tasks detailed above supported by appropriate paperwork, for example power requirement calculations and appropriate documentation. The assessment for Outcome 1 could be combined with Outcome 3. Fault finding and diagnosis could be assessed through observation.

Higher National Unit specification: statement of standards (cont)

Unit title: Stage Lighting and Technology

Outcome 2

Describe safe working practices.

Knowledge and/or Skills

- ◆ Health, Safety and environment
- ◆ Legal requirements
- ◆ Industry codes of practice
- ◆ Access equipment
- ◆ Working at height
- ◆ Manual handling
- ◆ Risk assessment

Evidence Requirements

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

- ◆ describe a range of health, safety and environmental issues in relation to stage lighting equipment and procedures
- ◆ identify and describe the HSE regulations in relation to stage lighting equipment and procedures
- ◆ describe key aspects of industry specific codes of practice in relation to Health and Safety and the environment
- ◆ set up and operate access equipment
- ◆ demonstrate correct manual handling techniques
- ◆ produce a manual handling and risk assessment

Assessment Guidelines

This Outcome could be assessed by a written or recorded oral report of approximately 500 words or equivalent and a completed manual handling and risk assessment. An observation checklist could be used to record the candidate's ability to carry out the practical aspects of the Outcome (setting up access equipment and manual handling).

Higher National Unit specification: statement of standards (cont)

Unit title: Stage Lighting and Technology

Outcome 3

Lead a stage lighting team throughout the production process.

Knowledge and/or Skills

- ◆ Team working
- ◆ Time management
- ◆ Equipment preparation
- ◆ Health and safety procedures
- ◆ Resource management
- ◆ Schedules
- ◆ Budgeting
- ◆ Lighting plan, equipment and technology
- ◆ Production meetings
- ◆ Interpreting production context and design expectations
- ◆ Problem solving
- ◆ Rigging, focusing, plotting and operation
- ◆ Feedback sessions

Evidence Requirements

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

- ◆ organise resources in preparation for production
- ◆ ensure stage lighting equipment is operational, maintained and safe for use
- ◆ interpret the production context and design expectations
- ◆ create provisional cue list
- ◆ communicate and work effectively with the company
- ◆ work within budget
- ◆ read a lighting plan
- ◆ schedule and ensure work is completed to schedule
- ◆ prepare risk assessments
- ◆ co-ordinate rigging, focusing and plotting sessions in accordance with the lighting design
- ◆ co-ordinate pre-show, interval, post show checks
- ◆ respond promptly and effectively to notes and feedback sessions
- ◆ co-ordinate striking and de-rigging sessions

Higher National Unit specification: statement of standards (cont)

Unit title: Stage Lighting and Technology

Assessment Guidelines

This Outcome could be assessed through a portfolio of relevant production paperwork supported by an observation checklist for the practical elements of the Outcome.

Portfolio of production paperwork may include:

- ◆ Up-to-date equipment check list
- ◆ Interpretation of production context and design expectations
- ◆ Rehearsal schedule
- ◆ Budget analysis.
- ◆ Lighting cue synopsis.
- ◆ Minutes of meetings.
- ◆ Lighting plan
- ◆ Colour call
- ◆ Circuit/patch list.
- ◆ 'To do' lists/schedules of work
- ◆ Pre-show, interval and post show checklists
- ◆ Lighting cue sheets
- ◆ Focus notes
- ◆ Rehearsal and performance notes
- ◆ Strike plan (electrics)

Outcome 4

Evaluate own contribution to the stage lighting process.

Knowledge and/or Skills

- ◆ Self evaluation
- ◆ Best practice

Evidence Requirements

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

- ◆ critically evaluate their own performance in Outcomes 1, 2 and 3
- ◆ identify their strengths and weaknesses
- ◆ identify areas for improvement

Assessment Guidelines

This Outcome could be assessed by a written or recorded oral self-evaluation report of approximately 1,000 words or equivalent.

Higher National Unit specification: support notes

Unit title: Stage Lighting and Technology

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 the candidate's skills as stage lighting technician. The emphasis is on practical work throughout.

In Outcome 1, candidates should be rigging, cabling and programming a range of digital multiplex (DMX) fixtures, calculating power supply, cable runs and detailing procedures for diagnosing faults. Current stage lighting technology should be utilised, for example colour scrollers, LED instruments and automated lighting fixtures. Whilst opportunity may well arise in Outcome 3 to use this equipment and diagnose faults within the lighting rig for a production — it may be necessary to provide workshops. Simulation exercises where faults within a stage lighting rig could be 'set up' for candidates to diagnose — these should be more complex tasks than an instrument that has just not being plugged in.

Outcome 1 may be integrated with Outcome 3 if technology is appropriate to the production being staged.

In Outcome 2 candidates are required to understand key aspects of HSE regulations such as *Lifting Equipment and Lifting Operations Regulations*, *Provision and Use of Work Equipment Regulations* and *Management of Health and Safety at Work* and also industry standard 'codes of practice'. The candidates should also have awareness of current environmental issues relating to energy efficient lamps and related issues such as disposal of lamps. As part of the learning process candidates should be encouraged to apply knowledge and skills of health and safety throughout the Unit. Practical tasks require the inspection and set up of ladders and access equipment such as a tallescope, Genie or other Ariel work platform. This and risk assessment and manual handling assessments for Outcome 2 could be carried out in preparation for production work in Outcome 3.

In Outcome 3 the candidate is given the opportunity to work as head of department engaging fully in the production process and co-ordinating members of their lighting team. Working closely with the lighting designer the candidate should be involved in both the practical and aesthetic side of realising lighting for the production. The production could be a play, musical, dance or live music event which offers a range of stage lighting technology to work with.

In Outcome 4 candidates analyse and evaluate their own performance through the first three Outcomes of the Unit.

Higher National Unit specification: support notes (cont)

Unit title: Stage Lighting and Technology

Guidance on the delivery and assessment of this Unit

This Unit, which is likely to form part of a Group Award, is primarily intended to provide candidates with the necessary skills to carry out the role of stage lighting technician. The Unit should be delivered in an appropriate theatre/stage environment. Outcome 3 should be incorporated within public performance productions which will allow candidates to experience 'real' situations.

Learning and teaching approaches

It is recommended that Outcome 1 is delivered through a series of practical exercises where checklists are used to observe the candidate rigging, cabling and programming fixtures. Workshops are appropriate if equipment has to be hired. Fault finding diagnosis could be assessed by a practical exercise whereby the candidate has to demonstrate logical process to diagnosing a problem and correcting it within the lighting rig

Outcome 2 requires candidates to prepare a report detailing key health and safety legislation relating to stage lighting processes. Investigation and research into safety within the entertainment sector and key points of each regulation highlighted.

Candidates should be encouraged to put into practice the safe working methods and be aware of the HSE regulations they are legally required to follow.

Outcome 3 requires candidates to engage fully in the production process as head of department in lighting, assessment could be undertaken through observation throughout the production process. Candidates will also be required to submit relevant paperwork relating to organisation and realisation of lighting design.

Outcome 4 is an evaluation of the candidates own performance in the first three Outcomes of the Unit, detailing their strengths, weaknesses and areas for improvement.

Opportunities for developing Core Skills

There are opportunities to develop the Core Skills of *Working with Others*, *Numeracy*, *Problem Solving*, *Communication* and *ICT*, all at SCQF level 6 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

There are clear opportunities to develop the Core Skill of *Working with Others* within the third Outcome of the Unit 'Lead a stage lighting team throughout the production process'.

Opportunities to develop the Core Skill of *Numeracy* are present in Outcome 1 which requires the candidate to calculate power and cable requirements for a lighting rig and in Outcome 3 which requires candidates to work within a budget.

Opportunities to develop the Core Skill of *Problem Solving* are present throughout the Unit most notably within Outcome 2 which includes fault diagnoses.

Opportunities to develop the Core Skills of *Communication* and *ICT* are present throughout the Unit.

Higher National Unit specification: support notes (cont)

Unit title: Stage Lighting and Technology

Open learning

The Outcomes in this Unit rely on developing practical stage lighting skills through participation during, and throughout, the phases of a production. It requires communication with production director and related production personnel on an active and on-going basis. Therefore opportunities for distance learning are extremely limited. Centres may, however find it possible to develop solutions, provided all Unit and Evidence Requirements are met in full. Technological advances may make the possibility of such creative solutions more widespread in the future.

Disabled candidates and/or those with additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website www.sqa.org.uk/assessmentarrangements

History of changes to Unit

Version	Description of change	Date

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General information for candidates

Unit title: Stage Lighting and Technology

This Unit is designed to enable you to develop stage lighting skills using current technology, incorporating special effects and stage electrics.

You will learn the safe working practices and legal aspects of health and safety in stage lighting and also gain awareness of the environmental issues relating to stage lighting and technology.

In part of this Unit you will work as head of stage lighting which allow you to work closely with the lighting designer, co-ordinating the lighting team throughout the production.

On completion of the Unit you should be able to:

- ◆ implement stage lighting requirements
- ◆ demonstrate safe working practices
- ◆ co-ordinate stage lighting team throughout the production process
- ◆ evaluate own contribution to the stage lighting process

You are likely to be assessed through observation of your practical work and a portfolio of the documentation you produce. You will also produce a report on the relevant aspects of Health and Safety and an evaluation of your own performance in the role of head of lighting.

There will be opportunities for you to develop your Core Skills in *Working with Others*, *Numeracy*, *Problem Solving*, *Communication* and *ICT*.