



Australian Government

Department of Education, Employment and Workplace Relations

CUFLGT402A Set up, record and operate lighting cues and effects

Revision Number: 1

CUFLGT402A Set up, record and operate lighting cues and effects

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to set up a lighting control system, and to use the more complex functions of a console. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.
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Application of the Unit

Application of the unit	<p>Experienced lighting technicians or operators in the screen, media and entertainment industries apply the skills and knowledge outlined in this unit.</p> <p>At this level, they are expected to be reasonably creative and innovative in their implementation of lighting schemas across a diverse range of productions. They must be able to exploit the full capabilities of contemporary lighting systems in ways that are consistent with the aesthetics envisaged for productions. Attention to detail in recording and reproducing lighting cues is also required.</p> <p>Even though people at this level work autonomously, they are members of a production team and need to work collaboratively with lighting designers and directors to achieve creative outcomes. They are often responsible for supervising junior lighting technicians.</p> <p>Skills associated with implementing lighting designs are covered in:</p> <ul style="list-style-type: none"> • CUFLGT401A Implement lighting designs.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
Connect and format control system for productions	<ol style="list-style-type: none"> 1. Correctly connect <i>dimmers</i> to <i>control desk/console</i> through appropriate control protocols and check to ensure designer's control channel requirements can be achieved 2. Make correct connection to <i>peripheral accessories and control devices</i>, including display, storage and printing equipment 3. Check system for nature of soft patch inherited from previous <i>production</i> and check against default or production soft patch or patch according to enterprise requirements 4. Integrate geographic, grouping, scaling and use of peripheral accessories into the patching process 5. Check dimmers to ensure that they are receiving data and are operating correctly in relationship to required <i>production parameters</i> 6. Complete set-up tasks according to OHS requirements and <i>test control systems</i> for overall functionality 7. Establish, connect and test remote controls for relevant <i>production personnel</i>
Plot and operate advanced cue types	<ol style="list-style-type: none"> 8. Liaise with relevant production personnel to determine the nature of <i>cue type</i> required and use console appropriately to demonstrate capabilities 9. Make available the elements required for the cue type and correctly record 10. Demonstrate cue types to relevant production personnel in accordance with appropriate <i>documentation</i> and modify as required
Plot and operate effects	<ol style="list-style-type: none"> 11. Liaise with relevant production personnel to discuss the types of effect required, and the capacity of the console to produce such effects 12. Correctly use the effects menu, providing demonstrations to colleagues as required 13. Correctly identify the steps needed to record a chosen effect and complete these in a logical sequence 14. Demonstrate effects to relevant production personnel, make appropriate modifications as required and rehearse with relevant items and personnel
Solve lighting problems during performance	<ol style="list-style-type: none"> 15. Correctly and promptly identify lighting problems 16. Use knowledge of control desk/console features and

ELEMENT	PERFORMANCE CRITERIA
	functions to develop solutions to problems without disruption to performance 17. Assess the scope of the problem and make decisions for action within scope of individual responsibility

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- good communication and literacy skills in the context of:
 - working as an effective team member
 - briefing colleagues on lighting cues and effects
 - interpret relevant documentation, e.g. lighting plans, cue sheets
 - reading and understanding technical and operational manuals
 - interpreting and writing performance documentation
 - providing clear verbal and non-verbal cues during productions
- technical skills sufficient to:
 - use advanced features and effects of a range of lighting systems
 - plan for and use a variety of colour media in lighting
 - implement back-up systems used in conjunction with lighting control
- organisational and self-management skills sufficient to:
 - solve problems with lighting equipment during set-up and productions
 - make decisions about lighting operations quickly and effectively in a pressure environment
- initiative and creativity in the context of contributing innovative ideas to lighting plots
- numeracy skills sufficient to complete simple mathematical calculations and recall numbers for channel selections

Required knowledge

- basic elements of lighting design and their impact on the set-up of lighting control systems
- the advanced features and effects associated with different lighting systems
- features and operations (optical and mechanical) of the main types of lanterns, e.g.:
 - profile
 - fresnel
 - pebble/convex
 - moving lanterns
 - flood
 - PAR (parabolic aluminised reflector) lamps
 - lantern accessories
- lighting control concepts used in various lighting systems
- operational parameters of:
 - automated lighting

REQUIRED SKILLS AND KNOWLEDGE

- colour scrollers
- animation discs
- gobo rotators
- other effects accessories
- dedicated controllers for moving lights and remotely controlled lighting effects
- DMX protocols
- basic understanding of electronics and electricity
- duty of care to colleagues and general public
- OHS legislation and regulations as they apply to film/television/theatre/performance productions

Evidence Guide

EVIDENCE GUIDE	
<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> • ability to use the full range of console features to set up, record and operate lighting cues and effects • knowledge of lighting control terms and dimmer control protocols, including those related to advanced features • effective communication and problem solving skills • collaborative approach to work.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • practical demonstration of skills through the set-up, recording and operation of lighting cues and effects for more than one production • involvement of and interaction with a production team to reflect the collaborative nature of the production process • use of industry-standard equipment • access to a production venue and a selection of lighting equipment identified in the range statement • access to appropriate learning and assessment support when required • use of culturally appropriate processes and techniques appropriate to the language and literacy capacity of learners and the work being performed.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct questioning combined with review of portfolios of evidence and third-party workplace reports of on-the-job performance • evaluation of lighting effects produced by the candidate • evaluation of reports produced by the candidate on the processes undertaken to produce lighting for a given set of requirements

EVIDENCE GUIDE	
	<ul style="list-style-type: none">• case studies projects to develop lighting for different types of productions• verbal or written questioning to assess knowledge of equipment features.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none">• CUFLGT302A Record and operate standard lighting cues.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<p><i>Dimmers</i> may include:</p>	<ul style="list-style-type: none"> • analogue dimmers • multiplexed analogue dimmers, single-unit (follow spot) dimmers, e.g. Model 1 or Monopak • multiplexed digital dimmers, e.g. DMX512 • MUX and DMUX units, e.g. analogue conversion • small self-contained dimmable controllers, e.g. Fourpack, Quadpak.
<p><i>Control desks/consols</i> may include:</p>	<ul style="list-style-type: none"> • controlled lighting effects • manual/memory desks • manually operated desks.
<p><i>Peripheral accessories and control devices</i> may include:</p>	<ul style="list-style-type: none"> • back-up units • control cables • desk lamp • effects unit • external memory storage • lanterns, e.g.: <ul style="list-style-type: none"> • theatre-based units, e.g. profiles, fresnels • PAR (parabolic aluminised reflector) lamps • architectural fixtures • monitors • printers • riggers' controls • special effects units, e.g.: <ul style="list-style-type: none"> • smoke machines • fog machines • hazers • ultraviolet lights • chasers • strobes • mirror balls.

RANGE STATEMENT	
<i>Productions</i> may include:	<ul style="list-style-type: none"> • animations • documentaries • feature films • interactive media productions • live concert performances, e.g. rock concerts, open-air concerts/events • music videos • stage productions, e.g. plays, musicals • television productions, e.g. drama, sport, comedy.
<i>Production parameters</i> may include:	<ul style="list-style-type: none"> • animation discs • automated lighting • colour scrollers • dedicated controllers for moving lights and remotely controlled lighting effects • fibre optic displays • gobo rotators • other accessories, e.g. mirror balls, architectural lighting.
Aspects of <i>control systems</i> to be <i>tested</i> may include:	<ul style="list-style-type: none"> • correct functionality of: <ul style="list-style-type: none"> • lighting board • dimmer channels • peripherals • designer and riggers' controls • DMX line/signal. • correct selection of control protocols • soft patch configuration.
<i>Production personnel</i> may include:	<ul style="list-style-type: none"> • choreographer • director • director of photography • gaffer • lighting designer • producer • production manager • senior lighting technician • stage manager • supervisor • technical director • other technical/specialist staff.

RANGE STATEMENT	
<i>Cue types</i> may include:	<ul style="list-style-type: none"> • automatically linked fades • chases • conditional fades • manual changes • multiple simultaneous fades • operator's visual cues.
<i>Documentation</i> may include:	<ul style="list-style-type: none"> • cue sheets • fault reports • floor plans • grid layouts • lighting plans • memorandums • operational manuals • scripts • technical manuals.

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Media and entertainment production - lighting
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Co-requisite units

Co-requisite units	