



Australian Government

Department of Education, Employment and Workplace Relations

CUVPHI04B Apply photoimaging lighting techniques

Release: 1

CUVPHI04B Apply photoimaging lighting techniques

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the skills and knowledge required to employ lighting techniques to a range of subjects in different work spaces and to select equipment for different lighting techniques. In this activity occupational health and safety issues must be addressed. It is a specialisation unit and refers to specific photoimaging techniques. This work is carried out with limited supervision.

Current photoimaging industry practice relies increasingly on digital imaging processes and this should be reflected in training and assessment of this unit. Analogue equipment and processes may be used to support this as appropriate to the specific context.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Application of the Unit

Not Applicable

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units

It is highly recommended that this unit be assessed in conjunction with the following units:

- CUVDES05B Interpret and respond to a brief
- CUVDES04B Integrate colour theory and design processes in response to a brief
- CUVPHI06B Plan and carry out image capture in response to a brief
- CUVPHI07B Process photoimages to work print/file stage
- CUVPHI08B Enhance, manipulate and output photoimages
- CUFSAF01B Follow health safety and security procedures.

Employability Skills Information

Employability skills

This unit contains employability skills.

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.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Plan lighting requirements.	<p>1.1 Correctly identify required lighting characteristics for the <i>subject</i> and purpose of the image.</p> <p>1.2 Select appropriate lighting equipment for the purpose.</p>
2 Prepare specific work environment.	<p>2.1 Select <i>work environment</i> which meets requirements for the production of work.</p> <p>2.2 Care for work environment so that it remains clean and <i>safe</i> during production processes.</p> <p>2.3 Select relevant <i>camera system and accessories</i> for the work.</p> <p>2.4 Correctly set up camera system and accessories for the work, including props and/or position models when required.</p> <p>2.5 Correctly assemble the <i>lighting</i> system in accordance with work requirements.</p> <p>2.6 Consider and implement the required safety aspects of the lighting set up and cabling.</p> <p>2.7 Use equipment and <i>materials</i> in a manner which minimises waste.</p>
3 Light the subject.	<p>3.1 Test lighting techniques to suit purpose of work.</p> <p>3.2 Confirm that lighting techniques are consistent with purpose of the work.</p> <p>3.3 <i>Adjust</i>, modify and calibrate qualities of light to suit subject.</p> <p>3.4 Calculate and determine the exposure for the subject consistent with purpose for the photograph(s).</p>
4 Capture image.	<p>4.1 Expose film or media using determined calculations.</p> <p>4.2 Review image captured against work requirements and take action accordingly.</p> <p>4.3 Accurately document the work progress as required.</p>

ELEMENT**PERFORMANCE CRITERIA**

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| 5 Restore work environment and equipment. | 5.1 Safely clean work environment after use.
5.2 Clean and maintain equipment in accordance with manufacturer's instructions after use.
5.3 Safely transport and store equipment and materials and ensure readiness for future use. |
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Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills:

- literacy skills sufficient to read and interpret written instructions, safety labels and procedures
- numeracy skills sufficient to interpret technical charts and diagrams pertaining to a range of lighting procedures and techniques.

Required knowledge:

- general knowledge of the ways in which a typical photoimaging studio is organised and codes of practice
- general knowledge of the electromagnetic spectrum, colour temperature and colour synthesis
- general knowledge of photoimaging lighting, including terminology and identification
- some knowledge of the ways in which light sensitive materials, including films and digital sensors, respond to light and knowledge of the implications of light on exposure of light sensitive media
- some knowledge of physical properties and capabilities of the camera systems and lighting equipment used in the exposure of photographic film and digital sensors
- occupational health and safety issues and procedures associated with lighting
- general knowledge of elements and principles of design
- theoretical and historical contexts of lighting for photoimaging and a range of other art forms, e.g. painting and drawing
- general knowledge of other photographers, their work, ideas and techniques

REQUIRED SKILLS AND KNOWLEDGE

especially pertaining to lighting.

Evidence Guide

EVIDENCE GUIDE

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.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The following evidence is critical to the judgement of competence in this unit:

- the selection of appropriate camera and lighting equipment and associated accessories for specified subjects
- application of a range of lighting techniques for the specified subjects.

Context of and specific resources for assessment

The assessment context must provide for:

- project or work activities that allow the candidate to select and apply a range of lighting techniques for specified subjects
- presence of time constraints that reflect industry practice and standards.

Method of assessment

Assessment may incorporate a range of methods to assess performance and the application of essential underpinning knowledge, and might include:

- direct observation of the application of lighting techniques
- evaluation of lighting within images produced by the candidate
- questioning and discussion about the candidate's intentions and work outcome
- verbal or written reports
- review of folios of evidence
- third party workplace reports of performance by

EVIDENCE GUIDE

the candidate.

Assessment methods should closely reflect workplace demands (e.g. literacy) and the needs of particular groups (e.g. people with disabilities and people who may have literacy or numeracy difficulties such as speakers of languages other than English, remote communities and those with interrupted schooling).

Assessment of this unit requires access to the materials, resources and equipment needed to select, set up, adjust and apply camera and lighting systems.

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.

Subjects to be lit may include:

- photo-documentary
- portraiture (formal or candid)
- scientific/medical/technical
- still life, e.g. glassware
- the built environment
- the natural environment.

Work environment needs may include:

- chairs, stools, posing equipment and tables
- dust free environment
- electricity
- lighting, natural/available or studio
- other portable equipment and materials, e.g. ground sheets, backgrounds
- portable generator
- ventilation/air conditioning
- work tables and storage areas and facilities.

Safely means in accordance with:

- Federal, State and Territory legislation, regulations and standards.

Camera systems and accessories may include:

- 120 camera, 4x5 camera
- 35mm SLR camera
- cable release
- digital cameras and backs
- exposure meters
- film and media
- filters

RANGE STATEMENT

Lighting equipment and techniques may include:

- range of lenses
- tripods and/or camera stands.

- equipment:
 - fibre optics
 - floor pack electronic flash systems
 - French flags and gobos
 - light modifying devices, including scrims, umbrellas, honeycombs and grids, soft boxes, reflectors, light absorbers
 - portable (monobloc type) systems
 - portable electronic flash
 - portable photoflood and tungsten light systems
- exposure:
 - grey card readings
 - incident/reflective readings
 - lighting ratio and brightness range readings
 - off the film plane metering (TTL&OTF metering)
 - spot meter readings
- light sensitive materials:
 - different types of film and electronic sensors
 - response of light sensitive material to different colours of light source
- light sources:
 - candle flame and other ambient low light sources
 - fluorescent lighting
 - incandescent, tungsten, photoflood
 - metallogenic and discharge lamps
 - ultraviolet and infra-red
- special situations:
 - scientific/technical techniques
- techniques:
 - background effects
 - colour balancing and the use of colour temperature meters and filters
 - combined lighting and the illusion of movement

RANGE STATEMENT

- feathering the light
- lighting for silverware
- lighting for textured surfaces
- lighting glassware, gloss ware
- lighting techniques for translucent surfaces
- painting with light
- shadowless lighting
- synchro sun and fill flash
- white balance and custom colour optimisation for electronic sensors.

Apart from lighting and camera equipment other *materials* may include:

- gaffer tape
- ground sheets
- power cables and multi-outlet power boards for electrical equipment
- suitable props
- transport cases and bags for equipment.

Adjusting and/or calibrating camera settings for lighting may involve:

- aperture
- lens focal length
- lens hoods
- shutter speed.

Unit Sector(s)

Not Applicable