



Australian Government

Department of Education, Employment and Workplace Relations

CUVPHI518A Explore the descriptive and emotive nature of photo lighting

Release: 1

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Modification History

Version	Comments
CUVPHI518A	This version first released with <i>CUV11 Visual Arts, Craft and Design Training Package version 1.0</i>

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to produce creative and innovative photo images using photo lighting principles.

Application of the Unit

Every aspect of photo imaging practice is based on images created with and by light. Photo imaging practitioners are required to interpret lighting requirements for briefs, as well as determine appropriate lighting requirements for a range of subjects, both in the studio and on location.

The photo imaging practitioner is required to apply the special attributes of lighting to accurately describe or enhance a subject's appearance. In advanced areas of photo imaging practice, the emotive power of the image is created by the selection and control of lighting and light quality.

This work is usually undertaken independently, with guidance where required.

Licensing/Regulatory Information

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

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Element	Performance Criteria
<i>Elements describe the essential outcomes of a unit of competency.</i>	<i>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.</i>

Elements and Performance Criteria

<p>1. Research light and its relationship to photo imaging</p>	<p>1.1 Identify and review historical and contemporary lighting techniques and technology for descriptive and emotive lighting</p> <p>1.2 Identify and review contemporary theories on the nature of light for descriptive and emotive lighting</p> <p>1.3 Identify and review photo imaging lighting technologies and their response to light</p> <p>1.4 Evaluate currency and credibility of information gathered and ensure research scope is sufficiently broad</p> <p>1.5 Prepare a shoot list for a range of lighting experiments and confirm lighting techniques and schema with appropriate people</p>
<p>2. Experiment with light and resolve lighting problems for complex subjects</p>	<p>2.1 Source and apply shoot requirements to identified range of lighting experiments</p> <p>2.2 Explore interior and exterior subjects in a range of locations in the experimental process</p> <p>2.3 Apply OHS processes and standards in the experimental process</p> <p>2.4 Apply lighting techniques and technology in the experimental process</p> <p>2.5 Review performance and adapt lighting techniques and technology in the experimental process</p>
<p>3. Apply descriptive and emotive lighting in a photo imaging context</p>	<p>3.1 Produce a series of photo images using appropriate lighting techniques and technology</p> <p>3.2 Evaluate the effectiveness of lighting techniques and technology in the production of photo images</p> <p>3.3 Wrap up process and reinstate equipment</p> <p>3.4 Catalogue, store and maintain research reference material and work samples</p> <p>3.5 Identify future opportunities, work directions, equipment needs and workflow changes resulting from application of photo lighting principles</p>

Required Skills and Knowledge

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

Required skills

- photo imaging skills to:
 - archive, maintain and manage film and digital assets
 - create and optimise files and film to photo imaging industry standards
 - implement OHS and quality control procedures as they apply to a range of lighting techniques and technology
- research skills to access and compare contemporary styles and conceptual and aesthetic approaches to lighting techniques and technology
- critical thinking skills to:
 - reflect on and analyse own performance
 - recognise barriers to innovative possibilities arising from lighting techniques and technology
- literacy skills to:
 - interpret business documents and contracts
 - obtain necessary permits and licences to operate equipment and work in special locations
- numeracy skills to determine mathematical problems arising from technical processes associated with lighting techniques and technology
- communication skills to:
 - explain and describe work practices and methods
 - negotiate with suppliers, models, creative teams and other stakeholders
- learning skills to:
 - learn the operation of equipment
 - review personal performance within shoot context
 - upgrade knowledge required to work in varied locations
- planning and organising skills to:
 - adhere to timelines within the experimental process
 - coordinate activities of models, assistants, and creative and production teams
 - organise shoots on location and in studio and prepare shoot management timelines
- technology skills to check and reinstate equipment, studio and props.

Required knowledge

- OHS procedures and standards associated with lighting techniques and technology
- lighting techniques and technology to determine suitability for innovative and creative production purposes
- traditions and contemporary issues that inform lighting techniques and technology.

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.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • research, identify, test and apply lighting techniques and technology • implement OHS and quality control procedures when applying lighting techniques and technology • review personal performance when applying lighting techniques and technology.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • access to: <ul style="list-style-type: none"> • a range of locations and studios for photo imaging shoots • a range of photo imaging production equipment, such as cameras, computers, software, printers, lighting and accessories • sources of information on allied industries' lighting techniques and technology • sources of information on lighting techniques and technology, such as magazines, newspapers, libraries and internet • appropriate learning and assessment support when required • opportunity for collaboration with or in allied industries, such as scientific, technical, film, television and theatre • the use of culturally appropriate processes, and techniques appropriate to the oracy, language and literacy capacity of the candidate 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 • review of third-party reports from experienced practitioners • direct observation of candidate applying lighting

	<p>techniques and technology, implementing OHS and quality control processes and meeting deadlines</p> <ul style="list-style-type: none"> • case studies to assess candidate's ability to evaluate lighting techniques and technology and their suitability for historical and contemporary contexts and themes • problem-solving activities to assess candidate's critical thinking skills. <p>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).</p>
<p>Guidance information for assessment</p>	<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"> • CUVPHI516A Research the role and use of the photo image in visual communication • CUVPHI517A Research and exploit photo imaging trends • CUVPHI519A Investigate and exploit innovative imaging options.

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>Lighting techniques and technology</i> may include:</p>	<ul style="list-style-type: none"> • candles, matches and firelight • car headlights and light trails • film, television and theatre • fireworks and sparklers • galleries and displays • Kirlian imagery • natural light, including: <ul style="list-style-type: none"> • lightning • sunlight and starlight • aurora • photography/imaging lighting for studio or location • Schlieren • street lights • supplementary and mixed lighting situations where images are made by ambient and supplementary illumination to: <ul style="list-style-type: none"> • create colour effects • enhance the colour depth of the subject • emphasise parts of the subject • balance the contrast that may be apparent from the principal illumination • torches and spotlights • ultrasound • ultraviolet and infra-red sources • x-rays and gamma rays.
<p><i>Theories on the nature of light</i> may include:</p>	<ul style="list-style-type: none"> • human vision • nature of light, including: <ul style="list-style-type: none"> • colour temperature • electromagnetic spectrum • inverse square law • natural light phenomena • reflection and absorbance • terms used to define light quality and direction.
<p><i>Photo imaging lighting</i></p>	<ul style="list-style-type: none"> • digital sensors

<p><i>technologies</i> may include:</p>	<ul style="list-style-type: none">• dynamic range of input (capture) device and tonal clipping of output (printing) device• exposure determination methods and devices:<ul style="list-style-type: none">• digital histograms• dynamic range• lighting ratios• film emulsions• merge to high dynamic range (HDR)• meter types:<ul style="list-style-type: none">• colour temperature• flash meter• hand-held• in-camera• spot• metering methods:<ul style="list-style-type: none">• colour and resolution targets• evaluative• grey cards• incident• off-the-film• reflective• metering modes:<ul style="list-style-type: none">• centre-weighted averaging• matrix• spot• natural or ambient light:<ul style="list-style-type: none">• afterglow• corpuscular rays (God beams and columns)• mercury and sodium vapour lights• mist and fog• moonlight• rain and storm• rainbows• smoke and haze• sunlight• sunrise and sunset• reciprocity failure• scan backs• shooting in RAW• studio and location lighting technology:
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	<ul style="list-style-type: none"> • combined ambient and flash • electronic flash • high-speed flash • multi-flash and strobe • painting with light • southlight and northlight opening for natural light • tungsten and photoflood • use of gels to colour light sources • use of transparent and translucent surfaces to place subjects on for shadowless effects • tungsten, incandescent and fluorescent • zone system.
<p><i>Appropriate people</i> may include:</p>	<ul style="list-style-type: none"> • members of relevant professional associations • mentors and peers • practising photographers, photo imagists and members of allied fields.
<p><i>Shoot requirements</i> may include:</p>	<ul style="list-style-type: none"> • hiring lighting and equipment • locating specialist lighting technical experts • obtaining legal access to locations (e.g. permits and site licences) and specialist lighting technology • upgrading skills to operate specialist lighting technology and/or work in hazardous locations.
<p><i>Range of locations</i> may include:</p>	<ul style="list-style-type: none"> • agricultural and rural • commercial and industrial • indoors • natural landscape • studio • underwater • urban.

Unit Sector(s)

Visual communication – photo imaging