



Australian Government

Department of Education, Employment and Workplace Relations

CUVDES601A Design innovative products

Release: 1

CUVDES601A Design innovative products

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the performance outcomes, skills and knowledge required to design and develop innovative products in the creative arts industry.

This unit builds on the introductory unit CUVDSP14A Research and apply techniques for the design of products.

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

Application of the Unit

Application of the unit

This unit applies to the creative arts industry where the development of innovative products is preceded by significant market research leading to the formulation of design concepts and solutions. This unit requires the self-directed application of skills and knowledge to design and develop innovative products that are 'market-ready'. This work is usually carried out independently or as part of a design team.

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units Nil

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 Identify commercial opportunities for creative product/s. | <ul style="list-style-type: none">1.1 Identify purpose, target market and medium of <i>creative product/s</i>.1.2 Undertake market analysis using appropriate <i>information sources</i> to determine <i>design and production requirements</i> of creative product/s.1.3 Evaluate currency/credibility of information sources and ensure research scope is sufficiently broad.1.4 Maintain accurate and comprehensive details of information sources. |
| 2 Formulate and test design concepts for creative product/s. | <ul style="list-style-type: none">2.1 Conceive and develop ideas/styles that complement design and production requirements using <i>critical thinking techniques</i> and <i>entrepreneurial attitudes</i>.2.2 Communicate design concepts using <i>appropriate documentation methods</i> to produce a preliminary representation of the creative product/s.2.3 Critique, review and test design concepts (including objectives/constraints) with <i>appropriate person/s</i>.2.4 Ensure design concepts incorporate <i>elements and principles of design</i>.2.5 Negotiate design solutions with appropriate person/s. |
| 3 Develop and exploit creative product/s. | <ul style="list-style-type: none">3.1 Select and organise production resources in accordance with design and production requirements.3.2 Develop creative product/s in accordance with design and production requirements.3.3 Supervise the production process to ensure creative product/s meets requirements of target market.3.4 Present creative product/s to appropriate person/s in a way that optimises clarity, conciseness and appeal.3.5 Exploit identified commercial opportunities |

ELEMENT**PERFORMANCE CRITERIA**

within target market.

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 communicate design concepts, research and evaluate relevant source materials and complete design documentation
- numeracy skills sufficient to:
 - assess the financial viability of creative/commercial opportunities
 - manage budgets
- communication skills sufficient to critique/review design concepts and negotiate design solutions with stakeholders
- creative thinking skills sufficient to conceive and develop design ideas and identify commercial opportunities to exploit them
- planning and organisational skills sufficient to:
 - interpret and respond to design briefs
 - supervise the production of creative products
 - undertake market analysis/research into target markets and design trends
- problem solving skills sufficient to develop and implement design solutions
- technology skills sufficient to implement and use design hardware/software.

Required knowledge:

- common formats and features of design briefs
- commonly used research methodologies
- copyright, moral rights, intellectual property and legislation (applicable to specific industry contexts and design disciplines)
- equipment, media and software and their application to product design/manufacture
- occupational health and safety requirements relevant to particular work contexts and design disciplines
- production processes as they apply to designs in particular industry contexts
- quality assurance processes for product design and development (applicable to

Required Skills and knowledge

- specific industry contexts and design disciplines)
- work and ideas of other product designers.

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

Evidence of the following is essential:

- ability to identify commercial opportunities for creative product/s
- ability to formulate and develop design concepts
- ability to develop and exploit creative products.

Context of and specific resources for assessment

Assessment must ensure:

- access to an appropriate environment where design concepts and solutions can be negotiated with relevant stakeholders
- access to an environment where creative and commercial design opportunities can be exploited
- access to appropriate equipment, media and software used for product design/manufacture
- access to appropriate technology and information sources to undertake market analysis and research design trends
- access to appropriate learning and assessment support when required
- the use of culturally appropriate processes, and techniques appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following

EVIDENCE GUIDE

examples are appropriate for this unit:

- direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate
- case studies to assess candidate's ability to undertake market analysis/research design trends
- direct observation of the candidate negotiating design solutions and exploiting creative products/s
- evaluation of design documentation and creative products/s produced by the candidate
- oral or written questioning to assess knowledge of technical and context issues that impact on design in a given industry context.

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- BSBDES501A Implement design solutions
- BSBDES601A Manage design realisation

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.

Creative product/s may include:

- platforms
 - digital media (CDs, DVDs, films, games consoles, kiosks, mobile phones, PDAs, slide shows, television, videos, websites)
 - tactile media (displays, exhibitions, presentations, print publications)
- two and three dimensional visual forms
 - digital media (animation, audio, code/script, film, graphic, image, modelling, text, video)
 - tactile media (cardboard, clay, fabric, fibre, film, glass, ink, lacquer, latex, leather, metal, paint, paper, photograph, plaster, plastic, pulp, resin, rubber, sand, stone, wax, wire, wood)
- types
 - business/corporate
 - community
 - educational/training
 - entertainment
 - ephemera
 - experiences
 - information
 - personal
 - promotional.

Information sources may include:

- copyright/legal representatives
- discussions with innovative industry practitioners
- electronic/print media (news, reviews, articles)
- employee association/union representatives (and other sources of industrial relations information)

RANGE STATEMENT

- events (industry functions, conferences, trade fairs, community activities, expositions, exhibitions, festivals, social events, symposiums)
- government bodies and associated publications
- industry associations
- internet
- libraries and archives (text, film, video, sound, graphic)
- lifestyle and contemporary issues magazines
- museums/galleries/studios
- national/international journals (e.g. artist, computing and design journals)
- personal observations and experience
- professional competitions and awards
- retail/wholesale suppliers of products and services
- technical publications/reference books
- training programs, seminars, workshops, master classes, professional development opportunities.

Design and production requirements may include:

- access to resources such as:
 - software (authoring, composition, drafting, drawing, graphics, image capture, image manipulation, page layout)
 - equipment (computer hardware, drawing tools, hand and power tools)
 - medium (digital, tactile)
- aesthetic considerations such as:
 - features
 - finish
 - style (interactive, static)
- commercial considerations such as:
 - budget/costs (design, production, marketing)
 - business risk
 - feasibility
 - manufacturability
 - marketability
 - production method (mass, batch, one-off)
 - profitability
 - sustainability

RANGE STATEMENT

- timeframe
- viability
- cultural, ethical and social considerations such as:
 - accessibility
 - benefits
 - equity
 - user friendliness (ease of use)
- functional considerations such as:
 - efficiency/effectiveness
 - ergonomics
 - instructional integrity
 - reliability
 - spatial
- regulatory/technical considerations such as:
 - conditions of use
 - environmental
 - health and safety
 - industry and/or design standards
 - legal, contractual and copyright
 - licensing (product, open-source)
 - medium characteristics/capabilities
 - ownership/intellectual property.

Critical thinking techniques may include:

- analysing and evaluating actions and policies
- clarifying issues, values and standards
- comparing analogous situations
- comparing and contrasting ideals with practice
- comparing and evaluating beliefs, interpretations and theories
- developing criteria for evaluation
- distinguishing relevant from irrelevant facts
- examining and evaluating assumptions
- exploring implications and consequences
- generating and assessing solutions
- making interdisciplinary connections
- making plausible inferences and predictions
- noting significant similarities and differences
- reading and listening critically

RANGE STATEMENT

- recognising contradictions
- transferring insights to new contexts
- using critical vocabulary.

Entrepreneurial attitudes may include:

- ability to act on intuition and assumptions
- ability to think laterally and independently
- ability to work within ambiguity and uncertainty
- confidence in self and vision
- curiosity
- desire to take risks
- flexibility
- interest in pursuing new ideas.

Appropriate documentation methods may include:

- diagrams
- drawings or sketches - manual or computer aided design and drafting (CADD)
- electronic presentations
- illustrations
- layouts
- mock-ups
- models
- plans
- practice pieces
- prototypes
- samples
- verbal presentations
- written notes with rationale or description.

Appropriate person may include:

- clients
- commissioning body/organisation
- community organisation
- competitors
- construction staff
- design team
- early adopters
- management staff
- manufacturers
- material importers and suppliers

RANGE STATEMENT

- mentors
- peers
- production staff
- sales staff
- suppliers
- target market (customer segments, focus groups).

Elements and principles of design may include:

- design elements
 - colour
 - direction
 - form
 - light
 - line
 - mass
 - point
 - shape
 - size
 - space
 - texture
 - time
 - tone
 - value
- design principles
 - balance
 - contrast
 - dominance
 - emphasis
 - harmony
 - movement
 - pattern
 - proportion
 - rhythm
 - unity.

Unit Sector(s)

Not Applicable

Competency field

Competency field Creativity and Innovation - Design Process