



Australian Government

CUADES422 Research and apply techniques in product design

Release: 1

CUADES422 Research and apply techniques in product design

Modification History

Release	Comments
Release 1	This version first released with CUA Creative Arts and Culture Training Package Version 5.0.

Application

This unit describes the skills and knowledge required to test and apply techniques for the design and construction of product design prototypes. It involves planning resources required to meet the design brief, testing different approaches based on research and developing prototypes of products that meet brief requirements.

It applies to individuals who generate product designs as part of their working environment. Products may include soft furnishings, furniture, toys, decorative objects and kitchenware.

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

Unit Sector

Design – design process

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and organise requirements	1.1 Interpret design briefs in consultation with required personnel 1.2 Research financial, physical and human resources required for developing design concept to prototype stage 1.3 Investigate environmental, ethical and technical factors that impact on selection and use of resources 1.4 Select and prepare resources based on research into designs and approaches used for similar objects
2. Test design approaches	2.1 Produce preliminary visuals according to design brief requirements 2.2 Experiment and test design approaches using different techniques

ELEMENT	PERFORMANCE CRITERIA
	2.3 Evaluate, challenge and refine testing processes 2.4 Critique own work and seek feedback as required 2.5 Document outcomes of testing according to organisational policies and procedures 2.6 Select final design approach based on outcomes of testing and input from others
3. Make prototypes of products	3.1 Scope work and determine requirements for object fabrication 3.2 Select and organise materials, tools and equipment for fabrication according to design approach 3.3 Make prototype consistent with design concepts and briefs 3.4 Respond to feedback and refine work as required 3.5 Present prototypes within agreed timeframes

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Reading	<ul style="list-style-type: none">Evaluates detailed textual and visual information and determines conceptual and production requirements, including applicable legislation and standards
Writing	<ul style="list-style-type: none">Documents resources information and outcomes from idea development and testing using clear, specific language and industry-related terminology
Oral Communication	<ul style="list-style-type: none">Elicits feedback and confirms understanding using questioning and active listening techniquesParticipates in discussions using language and non-verbal features applicable to audience and context
Numeracy	<ul style="list-style-type: none">Identifies financial needs and calculates resource requirements for prototype production
Self-management	<ul style="list-style-type: none">Understands purpose of own role, and related responsibility for compliance with legal and ethical requirements and design standardsDirects own exploration of techniques and processes, and critically evaluates test samples
Teamwork	<ul style="list-style-type: none">Collaborates with others and discusses work process and outcomes, elicits feedback and identifies improvementsSelects and uses applicable communication conventions and

SKILL	DESCRIPTION
	techniques to respond to feedback and present prototypes to others
Planning and organising	<ul style="list-style-type: none">Plans, organises and completes tasks required to meet project and time requirements
Initiative and enterprise	<ul style="list-style-type: none">Makes analytical decisions about design options and applicable resources required for different design outcomes and their representation, using input from others when required

Unit Mapping Information

Supersedes and is equivalent to CUADES402 Research and apply techniques in product design.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1db201d9-4006-4430-839f-382ef6b803d5>