



Australian Government

CUAANM502 Create 3D digital environments

Release: 1

CUAANM502 Create 3D digital environments

Modification History

Release	Comments
Release 1	This version first released with CUA Creative Arts and Culture Training Package version 2.0.

Application

This unit describes the skills and knowledge required to create 3D digital environments using appropriate software, reference material and established designs.

It applies to individuals who follow technical and design specifications to produce 3D environments to scale. As members of a production team they must consider how later production stages rely on, and therefore influence, the creation of their work.

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

Unit Sector

Visual Communication – Animation and Digital Effects

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. Clarify work requirements	1.1 Determine requirements and purpose for 3D digital environments with reference to production documentation 1.2 Determine workflow sequences in consultation with relevant personnel to ensure production schedule deadlines are met 1.3 Select software that best suits the type of production and delivery platform for which 3D digital environments are being created 1.4 Gather and analyse reference materials to help with visualisation of 3D environments
2. Create 3D digital	2.1 Use software features to build a previsualisation of environments in relation to reference materials, and submit to relevant personnel

ELEMENT	PERFORMANCE CRITERIA
environments	for approval 2.2 Build realistically detailed environment models and progressively refine them until they meet design requirements 2.3 Check integrity of models and ensure spatial relationship (scale, form, weight and volume) meets design requirements 2.4 Apply texture coordinates as required 2.5 Create and incorporate matte paintings as required 2.6 Manipulate software features to apply lighting and shaders as required 2.7 Experiment with different lighting rigs and select a rig that meets design requirements 2.8 Adopt safe ergonomic practices when using screens and keyboards for extended periods of time 2.9 Continuously refine all aspects of 3D digital environments until required creative effect is achieved 2.10 Submit environments to relevant personnel for feedback on whether production requirements have been met and make final adjustments as required
3. Finalise projects	3.1 Render and output environments in required format and submit to relevant personnel by agreed deadlines 3.2 Make back-up copies of files, and save and store animations using appropriate output file formats and standard naming conventions 3.3 Participate in project evaluations and contribute ideas and suggestions about ways to improve future projects

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.4, 2.2, 2.3, 3.2	Interprets and analyses textual information from a range of sources for idea development and to confirm job parameters

Writing	1.1, 1.2, 3.2	- Documents task requirements and workflow sequences in an appropriate format - Names files using standard naming conventions
Oral Communication	1.2, 2.1, 3.1, 3.3	- Uses clear language to explain and discuss task requirements - Uses questioning and listening techniques to confirm understanding
Navigate the world of work	2.8, 3.2	- Follows enterprise procedures when managing files and directories - Adheres to work health and safety requirements
Interact with others	1.2, 2.1, 3.1, 3.3	- Uses appropriate communication practices and protocols to present drafts - Collaborates with others to refine ideas and discuss project outcomes
Get the work done	1.1-1.4, 2.1-2.7, 2.9, 3.1-3.3	- Plans and manages workflow processes to ensure design and production requirements are satisfied - Makes decisions directly related to task requirements - Experiments with techniques to produce a range of creative solutions - Evaluates work to identify opportunities for improvement - Uses digital tools to develop refined, technically accurate 3D digital environments for a range of productions and delivery platforms

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
CUAANM502 Create 3D digital environments	CUFANM502A Create 3D digital environments	Updated to meet Standards for Training Packages. Minor edits to clarify performance criteria.	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for CUAANM502 Create 3D digital environments

Modification History

Release	Comments
Release 1	This version first released with CUA Creative Arts and Culture Training Package version 2.0.

Performance Evidence

Evidence of the ability to:

- create detailed 3D digital environments that meet design requirements and production deadlines
- apply a range of modelling techniques to achieve creative and realistic effects
- select and use proficiently appropriate animation software to achieve product outcomes
- store 3D environments in appropriate file formats using industry naming conventions
- participate productively in project evaluation for improvement
- work collaboratively with others in a production team to achieve project outcomes.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline typical challenges of creating digital environments and how to handle these
- identify and describe digital modelling techniques used in development of 3D environments
- explain the importance of scale, form, weight and volume in the realistic construction of 3D environments
- explain the concept of integrity in modelling 3D environments
- identify relevant work health and safety standards that apply to working with computers and keyboards for extended periods of time.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in creative arts industry environments. The assessment environment must include access to:

- production documentation
- animation software
- interaction with others.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational educational and training legislation, frameworks and/or standards.

Links

Companion Volume implementation guides are found in VETNet -

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