



Australian Government

CUAANM313 Create 3D digital models

Release: 1

CUAANM313 Create 3D digital models

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 create 3D digital models that are produced primarily for online and mobile device application, and meet technical and design specifications.

The unit applies to those who clarify production requirements and produce 3D models under supervision, but they may have responsibility for planning their own 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 Clarify requirements and purpose for 3D digital models with reference to production documents 1.2 Confirm workflow sequences and production schedule deadlines in consultation with required personnel 1.3 Clarify modelling technique that suits production requirements with required personnel 1.4 Discuss and select digital modelling software that suits production delivery platform and modelling techniques, with required personnel 1.5 Gather and analyse reference materials for visualising 3D models
2. Develop 3D digital models	2.1 Block out models based on reference materials using software features and modelling principles

ELEMENT	PERFORMANCE CRITERIA
	2.2 Adopt safe ergonomic practices when using screens and keyboards for extended periods of time 2.3 Apply different effects to shape models according to design requirements using software features and geometry 2.4 Perform basic rigging to an animated skeleton to test models' topology allows for required deformation 2.5 Refine and check integrity of models progressively until they meet design requirements 2.6 Confirm with required personnel that models have not infringed copyright 2.7 Test and identify model faults, and modify as required 2.8 Apply models to required personnel for feedback, and adjust as required
3 Finalise 3D digital models	3.1 Review 3D models to ensure creative solutions meet design specifications 3.2 Discuss and confirm with required personnel additional requirements or modifications to 3D models and undertake necessary amendments 3.3 Render and output models in required format and submit to required personnel by agreed deadlines 3.4 Make back-up copies of files, and save and store 3D models using standard naming conventions

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
Numeracy	• Performs required adjustments to models using knowledge of shapes, symmetry and solids
Oral communication	• Explains ideas and requirements clearly and listens carefully to verbal instructions • Confirms understanding using questioning and listening skills
Reading	• Analyses textual information from production documents and reference materials to confirm design requirements
Writing	• Clarifies requirements and prepares work-related documentation using specific language required for audience
Planning and organising	• Plans, organises and implements tasks required to meet requirements within deadlines

SKILL	DESCRIPTION
Self-management	• Applies legislative requirements relevant to own role
Teamwork	• Responds to and draws on others' perspectives when negotiating design of 3D digital models • Collaborates to achieve joint outcomes in the design process, playing an active role in facilitating effective group interaction • Makes aesthetic and technical decisions in collaboration with others
Technology	• Uses digital software to create models and manage files

Unit Mapping Information

Supersedes and is equivalent to CUAANM303 Create 3D digital models.

Links

Companion Volume Implementation Guide is found on VETNet -

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

Assessment Requirements for CUAANM313 Create 3D digital models

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- create at least two 3D digital models that meet design requirements and production deadlines.

In the course of the above, the candidate must:

- collaborate with others to clarify requirements, discuss techniques, select modelling software and review models
- use 3D modelling software proficiently to build models and apply various modelling effects
- adopt safe ergonomic practices when using screens and keyboards for extended periods of time
- correctly store 3D models in appropriate file formats using industry naming conventions.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- stages in the production process from initial design through to finished product
- basic modelling principles used to build 3D digital models
- methods of using geometry to create scale, form, weight and volume in 3D models
- standard file naming conventions for saving and storing 3D models
- concept of integrity as it applies to 3D modelling
- relationship between topology and deformation
- processes of rendering as it applies to 3D modelling
- processes for using digital modelling software
- intellectual property and copyright considerations if using images from external sources
- work health and safety requirements relating to using screens and keyboards for extended periods of time.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- production documentation
- software for producing 3D digital models
- interaction with others required to demonstrate the performance evidence.

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

Links

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