ICTGAM413 Design and create 3-D digital models

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Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to design and create 3-D models.

It applies to individuals who design, develop and use digital media technologies, working independently or as part of a larger development team.

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

Unit Sector

Game development

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Clarify work requirements	1.1 Clarify the requirements and purpose for the design, and creation, of 3-D digital models, with reference to the production documentation
	1.2 Clarify organisational guidelines and work flow sequences to ensure that the production schedule deadlines are met with the relevant personnel
	1.3 Select the software that best suits the type of production and delivery platform for which 3-D digital models are being designed and created
	1.4 Gather and analyse reference materials to help with the design and visualisation of 3-D models

ELEMENT	PERFORMANCE CRITERIA
2. Design 3-D digital models	2.1 Design, and sketch, the concept drafts of a 3-D model
	2.2 Create the concept art for 3-D models
	2.3 Create the prototypes of 3-D models
3. Create 3-D digital models	3.1 Use software features to block out models, to determine the correct proportions related to reference materials
	3.2 Manipulate software features to apply basic lighting and shaders, as required
	3.3 Ensure that models' topology allows appropriate deformation, as required
	3.4 Progressively refine and check the integrity of models until they meet the design requirements
	3.5 Submit the models to the relevant personnel for comment regarding whether the production requirements have been met, and make final adjustments as required
	3.6 Render and output the models in the required format, and submit them to the relevant personnel by the agreed deadlines
	3.7 Make backup copies of the files and complete the workplace documentation, according to enterprise procedures

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, 1.2, 1.4, 3.1	• Identifies and evaluates documentation containing complex technical terminology to interpret the design brief and to conduct research into the design and visualisation of 3-D models • Interprets and comprehends computer-generated text, diagrams, icons, symbols, numbers, and letters necessary to use the relevant software
Oral Communication	1.1, 1.2	• Employs effective listening and open-questioning techniques to clarify design requirements, project scheduling and to obtain feedback
Numeracy	1.1, 1.2, 2.2, 2.3,	• Uses whole numbers, decimals and percentages relevant to file size, software and hardware

	3.1, 3.2, 3.3, 3.4, 3.6	specifications, measurement, scale, form, weight, volume, colour, shading, and other attributes/variables in the development of 3-D models
Get the work done	All	- Takes responsibility for planning tasks required to achieve required outcomes, negotiating some key aspects with others - Implements actions as per plan, making slight adjustments if necessary, and addressing some unexpected issues - Uses analytical processes to make decisions directly related to tasks - Evaluates outcomes of design solutions to improve future responses - Selects or supports new ideas on the basis of their contribution to the achievement of broader goals - Uses key features of specific digital systems and tools to complete required tasks - Manages and maintains files in a variety of storage media and formats

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTGAM413 Design and create 3-D digital models	ICAGAM413A Design and create 3-D digital models	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2