ICTGAM431 Design and create 3-D digital models

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 6.0.

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 and 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. Identify and clarify work requirements	1.1 Identify requirements and purpose of designing and creating 3-D digital models with reference to production documentation
	1.2 Clarify organisational guidelines, workflow sequences and industry standards applicable to designing and creating 3-D models
	1.3 Discuss production schedule deadlines and confirm they are feasible and can be met with required personnel
	1.4 Research and select software applicable to type of production and delivery platform of 3-D digital models
	1.5 Gather and analyse reference materials applicable to design and visualisation of 3-D models
	1.6 Identify and establish documentation requirements according to industry and organisational procedures and guidelines
2. Design 3-D digital	2.1 Design and sketch concept drafts of a 3-D model according to

models	task requirements
	2.2 Create concept art of required 3-D models
	2.3 Create prototypes of 3-D models according to organisational guidelines and task requirements
	2.4 Discuss prototypes and seek feedback from required personnel
	2.5 Apply required changes to prototypes according to feedback
3. Create 3-D digital models	3.1 Confirm topology of models aligns to task requirements
	3.2 Block out models and apply shaders using software features and determine required model proportions
	3.3 Manipulate software features and apply basic lighting as required
	3.4 Refine and check integrity of models until design requirements are met
	3.5 Submit models to required personnel and seek comments and feedback on whether production requirements have been met
4. Finalise 3-D digital models	4.1 Respond to feedback from required personnel
	4.2 Render and output models in required format and submit them to required personnel by agreed deadlines
	4.3 Make backup copies of the files, store in required location and complete workplace documentation according to organisational procedures
	4.4 Obtain final sign off from required personnel

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	• Uses whole numbers, decimals and percentages applicable to file size, software and hardware specifications, measurement, scale, form, weight, volume, colour, shading and other attributes and variables in developing 3-D models
Oral communication	• Employs listening and open-questioning techniques to clarify design requirements, project scheduling and obtain feedback
Reading	• Identifies and evaluates documentation containing complex technical terminology when interpreting the design brief • Conducts research into the design and visualisation of 3-D models • Interprets and comprehends computer-generated text, diagrams, icons, symbols, numbers and letters required in using applicable software

PwC's Skills for Australia

Skill	Description
Planning and organising	• Takes responsibility in planning tasks required in achieving outcomes and negotiates key aspects with others
Problem solving	• Make decisions directly related to tasks using analytical processes
Self-management	• Implements actions as per plan, making slight adjustments as required and addresses unexpected issues • Evaluates outcomes of design solutions and improves future responses • Selects and supports new ideas on the basis of their contribution to achievement of broader goals
Technology	• Completes routine tasks using specific digital systems and tools • Manages and maintains files in a variety of storage media and formats

Unit Mapping Information

Supersedes and is equivalent to ICTGAM413 Design and create 3-D digital models.

Links

Companion Volume Implementation Guide is found on VETNet -
https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2