



Australian Government

ICTGAM501 Create design concepts for digital games and 3-D media

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 1.0.

Application

This unit describes the skills and knowledge required to work innovatively in game development, using thoughtful strategies and well-developed technical skills to accommodate a specified design brief.

It applies to individuals who support the design, development and programming of interactive 3-D media and digital games 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
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and analyse commonly used design concepts for games and 3-D media	1.1 Obtain the project brief and other relevant organisational documents and procedures 1.2 Research and identify commonly used design concepts in digital games and interactive 3-D media 1.3 Analyse and interpret chosen common design concepts used in digital games and interactive 3-D media 1.4 Discuss design considerations for designing a digital game or an interactive 3-D media concept
2. Identify appropriate	2.1 Identify and review the appropriate range of industry-standard

ELEMENT	PERFORMANCE CRITERIA
software packages used for a digital game and 3-D concept design	<p>software available to develop design concepts</p> <p>2.2 Assess the software related to the concept design process requirements</p> <p>2.3 Discuss the technical specifications for the development process</p> <p>2.4 Select the software package</p>
3. Use a chosen software package	<p>3.1 Run the selected software package and become familiar with the user interface</p> <p>3.2 Create new files, organise and develop a file structure</p> <p>3.3 Learn the required tools and components used to create, and develop a digital game, or interactive 3-D media concept</p>
4. Create and develop the concept components for a digital game or interactive media	<p>4.1 Design a heads-up display for a digital game or 3-D interactive media</p> <p>4.2 Consider specific processes for the heads-up display elements</p> <p>4.3 Document the design, necessary programming process and requirements needed to implement the heads-up display</p> <p>4.4 Use the chosen software package to create and develop the visual design elements, and components, to be used for the heads-up display</p>
5. Implement a design concept into a game or 3-D interactive media	<p>5.1 Load in the images required and write the code to implement the heads-up display into an existing framework</p> <p>5.2 Write code to demonstrate heads-up display capabilities with implemented concepts</p>
6. Evaluate the implementation	<p>6.1 Demonstrate implementation to the relevant personnel</p> <p>6.2 Accept feedback to incorporate into the final design</p> <p>6.3 Assess and refine the concept with the relevant personnel</p> <p>6.4 Evaluate the usability of the concept's components</p> <p>6.5 Reflect on possible changes to improve the visual design and capabilities of the components</p>

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
Learning	3.3	<ul style="list-style-type: none"> • Uses a range of investigative and analysis techniques to acquire the knowledge needed to use tools, and other components, effectively for digital games and 3-D media production
Reading	1.1, 1.3	<ul style="list-style-type: none"> • Interprets and comprehends a large range of textual and diagrammatic information to inform instructional, technical, and conceptual requirements
Writing	1.1, 3.2, 4.1, 4.3, 5.1, 5.2, 6.2, 6.3	<ul style="list-style-type: none"> • Uses correct spelling and grammatical structures, clear language, and technical terminology when explaining technical and design requirements
Oral Communication	1.1, 1.4, 2.3, 6.2	<ul style="list-style-type: none"> • Elicits information using effective listening and open questioning techniques • Speaks clearly and concisely, converting highly technical language and terminology into plain English, when providing information
Numeracy	4.1, 4.3, 4.4	<ul style="list-style-type: none"> • Uses whole numbers, decimals and percentages, when manipulating software to achieve the required technical and design components
Interact with others	6.1, 6.3	<ul style="list-style-type: none"> • Cooperates and collaborates with others as part of routine activities, and to elicit support and feedback
Get the work done	1.1-1.4, 2.1-2.4, 3.1-3.3, 4.1-4.4, 5.1, 5.2, 6.1-6.5	<ul style="list-style-type: none"> • Actively sources, analyses and evaluates applications, with the potential to meet 3-D design requirements • Understands the purposes and uses the key features of specific digital systems, and tools, and operates them effectively to complete design tasks • Understands the importance of file structure, and takes responsibility for data integrity and management • Uses creativity and initiative in 3-D design • Plans, organises and completes work according to defined requirements and schedules taking responsibility for decisions, and sequencing tasks to achieve efficient outcomes • Uses a systematic process to evaluate work and to implement improvements

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTGAM501 Create design concepts for digital games and 3-D media	ICAGAM501A Create design concepts for digital games and 3-D media	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>