Australian Government

MSFID6001 Resolve complex spatial design problems through modelling

Release: 1

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Modification History

Release 1 - New unit of competency

Application

This unit of competency covers extending, developing and resolving complex spatial design problems to develop and refine a conceptual model and inform design work through experimentation with a range of spatial modelling techniques. It includes managing and organising resource requirements for new work and realising a fully resolved interior scheme through modelling.

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

Pre-requisite Unit

Competency Field

Unit Sector

Interior Decoration and Design

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1 Adapt and develop concepts as a result of design research	1.1 Criteria are established that are most likely to facilitate the achievement of the conceptual vision
	1.2 Consultation is conducted with colleagues to develop conceptual thinking approaches
	1.3 A range of spatial problems are examined to determine suitable approaches
	1.4 Relevant ideas and approaches are researched, adapted and incorporated from other practitioners

2	Visualise design concepts using a range of modelling techniques	2.1	Capabilities of a range of 2-D conceptual notions are extended through 3-D modelling
		2.2	The conceptual vision is refined based on ongoing experimentation using sophisticated modelling techniques
		2.3	A sophisticated concept model appropriate to the brief is presented to the client and feedback evaluated
3	Manage and organise resource requirements for new work	3.1	Materials, tools, equipment and computer-aided design (CAD) applications are researched for the achievement of different 3-D effects
		3.2	Resource requirements that arise from the use of techniques and experimental approaches are determined and organised for new work
		3.3	Critical path is determined, projecting completion dates of each stage of the project
4	Develop extend and resolve spatial ideas through modelling	4.1	Experimentation is undertaken with a range of modelling techniques to explore and develop complex 3-D notions
		4.2	Design elements and principles are applied and manipulated to assist in design development
		4.3	Scale, volume and proportion are explored and manipulated as part of a design development process
		4.4	A range of models are developed by hand or using CAD applications to revise and refine spatial ideas
5	Present a fully resolved interior space using sophisticated modelling techniques	5.1	Modelling technique is selected to meet the established criteria
		5.2	Appropriate scale is selected to meet brief criteria
		5.3	Resolved spatial ideas are accurately represented to scale
		5.4	Materials and textures are accurately represented to scale
		5.5	Construction, detailing and finishes are resolved and demonstrated through sophisticated modelling
		5.6	Detailed model is presented to client and feedback evaluated

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency. Detail on appropriate performance levels for each furnishing unit of competency in reading, writing, oral communication and numeracy utilising the Australian Core Skills Framework (ACSF) are provided in the Furnishing Training Package Implementation Guide.

Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Range is restricted to essential operating conditions and any other variables essential to the work environment.

Unit context includes:

- work health and safety (WHS) requirements, including legislation, building codes, material safety management systems, hazardous and dangerous goods codes, and local safe operating procedures or equivalent
- work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures, Liveable and Accessible Housing Design guidelines, and organisation insurance requirements

Spatial problems include:

- voids
- apertures
- thresholds
- atriums
- vertical and horizontal circulation systems
- public spaces
- multi-level spaces
- mezzanines
- transitional spaces
- staircases
- ceiling planes

Design elements and principles include:

- balance
- similarity
- texture
- contrast
- size
- ground
- volume
- composition
- orientation
- form
- structure
- 2-D space
- position
- proportion
- 3-D space
- repetition

- scale
- line
- rhythm
- pattern
- point
- symmetry
- tone
- plane

Unit Mapping Information

Supersedes and is equivalent to LMFID6001A Resolve complex spatial design problems through modelling.

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73