



Australian Government

MSFID6011 Resolve complex spatial design problems through modelling

Release: 1

MSFID6011 Resolve complex spatial design problems through modelling

Modification History

Release 1. Supersedes and is equivalent to MSFID6001 Resolve complex spatial design problems through modelling.

Application

This unit describes the skills and knowledge required to develop and refine conceptual models to 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.

This unit applies to interior designers.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

N/A

Unit Sector

Interior Decoration and Design

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Adapt and develop concepts as a result of design research	1.1 Establish criteria that are most likely to facilitate the achievement of the conceptual vision 1.2 Collaborate with colleagues to develop conceptual thinking approaches 1.3 Examine a range of spatial problems to determine suitable approaches 1.4 Research, adapt and incorporate relevant ideas and approaches from other practitioners
2. Visualise design concepts using	2.1 Extend capabilities of a range of two dimensional (2D) conceptual notions through 3D modelling

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
modelling techniques	2.2 Refine the conceptual vision based on ongoing experimentation using sophisticated modelling techniques 2.3 Present to the client a sophisticated concept model appropriate to the brief and evaluate feedback
3. Manage and organise resource requirements for new work	3.1 Research materials, tools, equipment and computer-aided design (CAD) applications for the achievement of different 3D effects 3.2 Determine and organise resource requirements that arise from the use of techniques and experimental approaches for new work 3.3 Determine critical path, projecting completion dates of each stage of the project
4. Develop extend and resolve spatial ideas through modelling	4.1 Experiment with a range of modelling techniques to explore and develop complex 3D notions 4.2 Apply and manipulate design elements and principles to assist in design development 4.3 Explore and manipulate scale, volume and proportion as part of a design development process 4.4 Develop a range of models by hand or using CAD applications to revise and refine spatial ideas 4.5 Use collaboration as an integral part of the process
5. Present a fully resolved interior space	5.1 Select modelling technique to meet the established criteria 5.2 Select appropriate scale to meet brief criteria 5.3 Accurately represent resolved spatial ideas to scale 5.4 Accurately represent materials and textures to scale 5.5 Resolve and demonstrate construction, detailing and finishes through sophisticated modelling 5.6 Present detailed model to client and evaluate feedback

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to MSFID6001 Resolve complex spatial design problems through modelling.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>

Assessment Requirements for MSFID6011 Resolve complex spatial design problems through modelling

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- fully resolved a final design solution for 3 complex spatial design problems through manual or computer-based modelling, demonstrating skills in:
 - collaboration
 - critical thinking
 - creativity and innovation.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- elements and principles of design, their interrelationships, and how they are used in interior design
- design process and progression of ideas
- design communication techniques
- types and nature of complex spatial challenges, and how modelling can be used to resolve:
 - apertures
 - atriums
 - ceiling planes
 - mezzanines
 - multi-level spaces
 - public spaces
 - staircases
 - thresholds
 - transitional spaces
 - vertical and horizontal circulation systems
 - voids
- different modelling and/or 3D visualisation techniques:
 - concept modelling
 - mass modelling

- detailed modelling
- 3D printing
- CAD models
- features and uses of White models
- features and uses of Maquettes
- structures in design contexts
- modular systems and repeats
- advanced 3D geometry.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - design briefs involving complex spatial challenges
 - manual or computer aided modelling materials.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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