



Australian Government

Assessment Requirements for MSFFDM5007 Develop, trial and evaluate prototypes

Release: 1

Assessment Requirements for MSFFDM5007 Develop, trial and evaluate prototypes

Modification History

Release 1. Unit code and Application changed. Elements and Performance Criteria changed. Range of Conditions removed and relevant content moved to Assessment Requirements. Assessment Requirements changed to remove duplication with Performance Criteria. Supersedes and is not equivalent to MSFFT5008 Develop, trial and evaluate prototypes.

Performance Evidence

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

- develop and evaluate two different prototypes, and in doing so:
 - identify compatibility/incompatibility of materials, adhesives, fittings and fasteners for the application
 - demonstrate how the design of the prototype or sample components will influence the working lifetime of the item.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- the function and features of a strong design brief, including:
 - the aims, objectives, milestones for the design project
 - workplace or personal profiles
 - target audience
 - budget
 - timeline
 - consultation requirements
 - colour requirements
 - image requirements
 - function
- range, characteristics and behaviours of a broad range of materials, including:
 - scrap timber and manmade timber
 - plastics
 - metal and metal alloys
 - stone
 - glass
 - fabrics and textiles
 - fibreglass

- leather
- foam
- cardboard and paper products
- any other manipulable substance
- adhesives
- fillers and finishes
- assembly processes, including:
 - nailing
 - gluing
 - screwing
 - welding
 - pressing
 - sewing
 - bonding
 - jointing
 - connecting various materials
- state or territory WHS legislation, regulations, standards and codes of practice relevant to the full range of processes for the construction of prototypes and samples
- organisational and site standards, requirements, policies and procedures for constructing prototypes and samples
- environmental protection requirements
- established communication channels and protocols
- relevant problem identification and resolution
- elements and principles of design, including:
 - line
 - shape
 - form (geometric or organic)
 - texture
 - colour
 - function
- trends and detailed knowledge of furniture construction
- principles of ergonomics design and aesthetic values
- types of tools and equipment and procedures for their safe use, operation and maintenance
- set-up and operation of equipment
- design and other relevant software and applications
- product assembly techniques
- sketching and drawing methods, including:
 - isometric
 - oblique
 - perspective
 - orthographic

- elevation drawings that explode the parts of the concept sketches and include:
 - rough sizes
 - scale
 - tones
 - values
- storage systems and labelling
- procedures for the recording, reporting and maintenance of workplace records and information
- destructive and non-destructive testing techniques and processes
- appropriate mathematical procedures for estimation and measurement
- work instructions, operating procedures and inspection processes to:
 - minimise the risk of injury to self or others
 - prevent damage to goods, equipment and products
 - maintain required production output and product quality.

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.

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

Links

Companion Volume implementation guides are found in VETNet -

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