



Australian Government

**Assessment Requirements for
MSFFDM4019 Research and select
manufacturing technologies**

Release: 1

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Modification History

Release 1. Supersedes and is not equivalent to MSFFDT5008 Research and recommend alternative manufacturing processes and MSFFDT5009 Research and recommend machine technology.

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:

- research and select manufacturing technologies and their application to three different design briefs, which individually or cumulatively involve at least two types of manufacturing technologies.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- how the selection of the manufacturing technology sits within the overall design and production process
- information needed to inform technology selection
- roles and responsibilities of those involved in decisions about selection of manufacturing technologies
- types of technical parameters that need to be considered and the nature of the relationship between the design concept and manufacturing technologies
- sources of information on manufacturing technologies
- key features, costs, efficiencies and technical application of current and emerging technologies, including:
 - CNC operations
 - 3D printing
 - foundries and casting
 - robotics
 - laser cutting
 - water-jet cutting
- how to structure and present information and recommendations.

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 and associated concepts
 - information technology for research and presentation.

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>