



Australian Government

MSFFDM5002 Coordinate and optimise workplace maintenance programs

Release: 1

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Modification History

Release 1. Unit code and title changed. 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 MSFFT5005 Organise enterprise maintenance programs and MSFFT5007 Optimise computer numerically controlled operations.

Application

This unit describes the skills and knowledge required to establish, organise and implement both preventative and reactive maintenance programs including software updates, capabilities and manipulations required to optimise operational and production performance. It includes computer numerically controlled (CNC) operations as well as other production and facility equipment involved in the production process.

This unit applies to individuals working in a technology- and maintenance-based role within a manufacturing workplace.

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

Competency Field

Design documentation and machine interface

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. Clarify maintenance requirements	1.1 Check equipment specifications, service requirements and workplace procedures for recommended maintenance intervals and processes 1.2 Separate special requirements for maintenance from normal lubrication, adjustment and maintenance schedules 1.3 Compare information with previous experience, future equipment use, production requirements and standard operating procedures 1.4 Identify and develop an outline plan for maintenance and a related work schedule that meets workplace needs

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Establish maintenance systems	2.1 Identify costing for process based on maintenance requirements 2.2 Identify workplace health and safety maintenance system requirements 2.3 Document and record required production interruptions, processes and procedures 2.4 Identify maintenance providers 2.5 Analyse maintenance systems options and recommend process to management 2.6 Obtain approvals for the maintenance systems concepts and resources
3. Organise maintenance activities	3.1 Identify suitable times for maintenance processes and shutdowns as needed from production schedules and staff rosters 3.2 Obtain permission from management for timing of maintenance to optimise the maintenance process and production 3.3 Develop detailed work plans based on production schedules, covering the availability of expertise and scheduling of resource availability 3.4 Identify employees with the required competencies and, where necessary, facilitate appropriate training and assessment 3.5 Obtain approvals for production schedule in accordance with organisational requirements 3.6 Refine work plan to ensure the maintenance program will maintain workplace outputs in terms of workplace policy
4. Resource maintenance requirements	4.1 Establish maintenance and reliable supply of required consumables 4.2 Confirm availability of externally sourced equipment
5. Complete maintenance procedures	5.1 Complete maintenance work schedule in accordance with the work plan 5.2 Take readings, measurements and recordings and compare with equipment, product and other relevant specifications 5.3 Identify areas requiring further testing and recommend appropriate procedures for testing to management 5.4 Adjust work schedule plan based on experience and complete documentation 5.5 Complete maintenance records and forward to appropriate

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	personnel
6. Optimise operations	6.1 Note areas where changes to equipment operation or routine maintenance are required to maintain optimum work output and equipment life 6.2 Compare production potential of components and equipment with actual outputs using cost–benefit analysis techniques, and analyse reasons for differences 6.3 Identify and analyse opportunities for equipment and systems integration to ascertain the optimal integration model 6.4 Recommend improvements to maintenance operations to management, based on cost–benefit analysis and integration opportunities

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Numeracy skills to interpret technical information.
- Writing skills to record and report on workplace maintenance programs.

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

Unit Mapping Information

Release 1. Supersedes and is not equivalent to MSFFT5005 Organise enterprise maintenance programs and MSFFT5007 Optimise computer numerically controlled operations.

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 MSFFDM5002 Coordinate and optimise workplace maintenance programs

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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 demonstrated the ability to:

- establish the maintenance program for one significant production operation that includes:
 - at least one computer numerically controlled operation
 - coordination of maintenance within the context of production schedules
 - identification of resource requirements for maintenance, including skills of employees involved
 - recording and reporting requirements to provide system visibility and accountability potential
 - identification of opportunities for optimisation across the operation, including for automated processes
- complete one cost–benefit analysis of an existing and significant maintenance program and suggest improvements to maintenance operations and, where authorised, negotiate changes.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- contemporary equipment maintenance theories covering benefits and costs
- the effects of production schedules, time and resource requirements when scheduling the maintenance process
- risk analysis processes
- workplace operating procedures, including procedures for maintenance
- operation requirements of equipment and work systems in the work area, including:
 - computer numerically controlled (CNC) operations
 - competency requirements of the maintenance work activities
 - workplace health and safety maintenance system requirements
- 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, including:
 - production schedules and other relevant workplace information
 - access to CNC equipment.

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

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