Australian Government

Department of Education, Employment and Workplace Relations

MSA61108 Advanced Diploma of Competitive Manufacturing

Revision Number: 2

INDUSTRY SKILLS COUNCILS

Creating Australia's Future

MSA61108 Advanced Diploma of Competitive Manufacturing

Modification History

This qualification has been superseded by MSS60312 Advanced Diploma of Competitive Systems and Practices from MSS11v2 Sustainability Training Package. Equivalent outcomes.

Description

The Competitive Manufacturing units of competency are categorised into three groups:

- Systems units (MSACMS)
- Change/interpersonal units (MSACMC)
- Tools units (MSACMT)

The Advanced Diploma requires a total of 30 units comprised of:

- a minimum number of CM systems units from the specified list
- a minimum number of CM change/interpersonal units from the specified list
- a minimum number of CM tools units from the specified list
- other CM units as specified and up to eight relevant units from another Training Package.
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Pathways Information

Not applicable.

Licensing/Regulatory Information

Not applicable.

Entry Requirements

Not applicable.

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

MSA61108 Advanced Diploma of Competitive Manufacturing

The following table contains a summary of the employability skills as identified by industry for this qualification. This table should be interpreted in conjunction with the detailed requirements of each unit of competency packaged in this qualification. The outcomes described here are broad industry requirements that reflect skill requirements for this level.

Employability Skill	**Industry/enterprise requirements for this qualification include**:
Communication	• Design and manage implementation of OH&S procedures • Develop and distribute safety information • Develop standardised documentation in an enterprise • Share and discuss information with others about enterprise activities • Develop and communicate workplace procedures • Provide information and clarifications to employees on workplace procedures • Develop instructions, specifications, standard operating procedures and other work related documents • Provide assistance or information to relevant personnel • Discuss workplace changes with relevant stakeholders • Design records for production and other required work related information • Develop workplace communication tools and procedures • Apply numeracy skills to work procedures • Provide information about activities to managers, shareholders, supervisors and customers
Teamwork	• Identify work organisation appropriate for processes and equipment, and employee skill and employment arrangements • Supervise and lead others in a production environment • Share production or work related information with peers including team members, supervisors and management • Eliminate or manage hazards to employees and visitors to ensure safety • Map the value chain and identify means by which employees can contribute to the final quality of the product • Identify, document and explain required changes to work practices and work organisation to team leaders and other employees • Provide assistance with planning work operations as required • Seek assistance with work operations from specialists and other

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
	employees as required • Participate in multidisciplinary teams as required
Problem-solving	• Establish and manage production and maintenance activities • Analyse inconsistencies, non-compliances, faults or hazards • Investigate major failures, safety incidents and quality non compliances • Identify factors that are a constraint to work efficiency or reaching of production outcomes • Establish processes to identify essential and non-essential practices • Develop methods of increasing features/benefits of products or processes • Analyse responsibilities of teams and make improvements to work organisation • Analyse process steps which cause a problem and identify improvement processes • Establish OH&S performance and improvement processes • Compare enterprise or factory required performance with actual performance • Identify situations where compliance to specifications or safety standards is unlikely • Identify recommend and implement improvements • Distinguish and analyse random and identifiable causes of work problems • Identify causes of identified faults and implement appropriate action • Investigate causes of quality deviations • Undertake root cause analysis • Identify deviations and fault patterns
Initiative and enterprise	• Manage procedures and systems for optimum outcomes • Design and implement feedback systems for workplace activities • Analyse problems and suggestions for improvements • Adjust production activities according to changes in customer requirements • Identify methods of increasing contribution of the enterprise to the value chain • Identify and implement changes and improvements • Monitor processes and equipment to ensure cost efficiency • Design and implement 5 S procedures in an enterprise or factory • Establish workplace practices to identify and reduce waste

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
	• Establish multidisciplinary teams to develop new products or processes
Planning and organising	• Plan work organisation to meet required standards • Establish systems to ensure work areas comply with OH&S procedures • Identify and manage processes, equipment and materials • Establish procedures to identify improvements • Monitor and adjust production/processes to meet customer requirements • Distinguish between essential and non-essential practices • Design planning tools for use within work teams • Manage implementation of 5 S procedures in factory or enterprise • Determine and prioritise required actions • Establish procedures to collect, organise and analyse information from work activities
Self-management	• Monitor work activities according to safety and workplace standards • Set production targets and outcomes • Interpret data and information as required by own job • Ask questions to ensure there is understanding of work requirements in teams and among other employees • Recommend methods of increasing own contribution to the value chain • Adjust work processes according to procedures and customer requirements • Identify and manage impact of change on own work • Minimise waste in own work activity • Assess own work performance • Set personal objectives for work performance • Manage own time
Learning	• Identify skill requirements of self and employees • Arrange skill development training for self and others • Adapt to changing work requirements • Ask questions to aid learning of others • Identify personal skill gaps and additional skills needs • Ask questions to ensure understanding of own work requirements • Monitor own work and identify areas for improvement • Seek feedback on work performance • Provide feedback on work performance to other employees

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
Technology	• Establish processes to monitor technology to ensure safety according to legislative requirements and workplace standards • Identify equipment and processes appropriate for jobs and skill levels of employees • Provide appropriate equipment to ensure safety and efficiency according to skill levels of employees • Assess operational efficiency of technology • Act on reports of faulty operation of equipment • Analyse data and other information from equipment reports • Conduct failure mode effects analyses • Use information technology appropriate for job • Establish maintenance procedures appropriate to equipment. job and processes according to skill levels of employees

Packaging Rules

Packaging Rules

To be awarded an Advanced Diploma of Competitive Manufacturing, competency must be achieved in 30 elective units of competency chosen as specified from the groups listed below.

Note that units with an asterisk have prerequisite requirements. The prerequisites for these units are to be counted in the total number of units. Refer to the prerequisite table or the individual units.

Elective units

Group A - CM Systems
A minimum of two of the following units must be chosen:

MSACMS600A	Develop a competitive manufacturing system	
MSACMS601A	Analyse and map a value chain	*
MSACMS602A	Manage a value chain	*
MSACMS603A	Develop manufacturing related business plans	
MSACMS604A	Manage competitive manufacturing processes in a jobbing shop environment	*
MSACMS605A	Develop a balanced score card for use in	*

MSACMS600A	Develop a competitive manufacturing system competitive manufacturing	
MSACMS606A	Introduce competitive manufacturing to a small or medium enterprise	

Group B - CM Change/interpersonal
A minimum of two units of the following units must be chosen:

MSACMC610A	Manage relationships with non-customer external organisations	
MSACMC611A	Manage people relationships	
MSACMC612A	Manage workplace learning	
MSACMC613A	Facilitate holistic culture improvement in a manufacturing enterprise	
MSACMC614A	Develop a communications strategy to support production	

Group C - CM Tools
A minimum of four units of the following CM Tools units must be chosen:

MSACMT452A	Apply statistics to processes in manufacturing	
MSACMT620A	Develop quick changeover procedures	
MSACMT621A	Develop a Just in Time (JIT) system	*
MSACMT622A	Design a process layout	
MSACMT623A	Develop a levelled pull system of manufacturing	
MSACMT630A	Optimise cost of product	*
MSACMT631A	Undertake value analysis of product costs in terms of customer requirements	*
MSACMT632A	Analyse cost implications of maintenance strategy	

MSACMT452A	Apply statistics to processes in manufacturing	
MSACMT640A	Manage 5S system in a manufacturing environment	
MSACMT641A	Implement a continuous improvement system	
MSACMT650A	Determine and improve process capability	*
MSACMT652A	Design an experiment	*
MSACMT653A	Apply six sigma to process control and improvement	*
MSACMT660A	Develop the application of enterprise systems in manufacturing	
MSACMT661A	Determine and establish information collection requirements and processes	
MSACMT662A	Develop a documentation control strategy for a manufacturing enterprise	
MSACMT670A	Develop and manage sustainable energy practices	
MSACMT671A	Develop and manage sustainable environmental practices	
MSACMT675A	Facilitate the development of a new product	*
MSACMT681A	Develop a proactive maintenance strategy	
MSACMT682A	Adapt a proactive maintenance strategy to the process manufacturing sector	*
MSACMT683A	Adapt a proactive maintenance strategy for a seasonal or cyclical manufacturing operation	*
MSAENV672B	Develop workplace policy and procedures for environmental sustainability	

Group D - Balance of units

The balance of units (up to a maximum of 22) may be drawn from any combination of:

- the CM units listed above

- a maximum of 10 units from the other CM elective units listed below (note that a only two of the 10 can be chosen from the 200 series units)
- units from other qualifications in this Training Package, other endorsed Training Packages and accredited courses, as specified below.

Other CM elective units

MSACMC210A	Manage the impact of change on own work
MSACMC410A	Lead change in a manufacturing environment
MSACMC411A	Lead a competitive manufacturing team
MSACMC413A	Lead team culture improvement
MSACMS200A	Apply competitive manufacturing practices
MSACMS201A	Sustain process improvements
MSACMS400A	Implement a competitive manufacturing system
MSACMS401A	Ensure process improvements are sustained
MSACMS405A	Lead a manufacturing team using a balanced score card approach
MSACMT220A	Apply quick changeover procedures
MSACMT221A	Apply Just in Time (JIT) procedures
MSACMT230A	Apply cost factors to work practices
MSACMT231A	Interpret product costs in terms of customer requirements
MSACMT240A	Apply 5S procedures in a manufacturing environment
MSACMT250A	Monitor process capability

MSACMC210A	Manage the impact of change on own work	
MSACMT251A	Apply quality standards	
MSACMT260A	Use planning software systems in manufacturing	
MSACMT261A	Use SCADA systems in manufacturing	
MSACMT270A	Use sustainable energy practices	
MSACMT271A	Use sustainable environmental practices	
MSACMT280A	Undertake root cause analysis	
MSACMT281A	Contribute to the application of a proactive maintenance strategy	
MSACMT421A	Facilitate a Just in Time (JIT) system	
MSACMT423A	Monitor a manufacturing levelled pull system	
MSACMT430A	Improve cost factors in work practices	
MSACMT432A	Analyse manual handling processes	
MSACMT440A	Lead 5S in a manufacturing environment	
MSACMT441A	Facilitate continuous improvement in manufacturing	
MSACMT450A	Undertake process capability improvements	*
MSACMT451A	Mistake proof a production process	
MSACMT453A	Use six sigma techniques	*
MSACMT460A	Use planning software systems in manufacturing	*
MSACMT461A	Facilitate SCADA systems in manufacturing team or work area	*

MSACMC210A	Manage the impact of change on own work
MSACMT481A	Undertake proactive maintenance analyses
MSACMT482A	Assist in implementing a proactive maintenance strategy
MSACMT483A	Support proactive maintenance
MSAENV272B	Participate in environmentally sustainable work practices
MSAENV472B	Implement and monitor environmentally sustainable work practices
MSAPMSUP390A	Use structured problem solving tools

A maximum of eight relevant units may be selected from other qualifications in this Training Package, other endorsed Training Packages where those units are available at Certificates IV, Diploma or Advanced Diploma. Units chosen should be relevant to the workplace and would normally be drawn from the appropriate sector Training Package, or possibly the Business Services Training Package.