MSS50111 Diploma of Sustainable Operations

This qualification provides the skills and knowledge required to work in a technical, supervisory or operational role in sustainability in an organisation and/or it's value chain (e.g. suppliers of goods or services, or customers). The qualification has been developed with manufacturing operations as a focus. However, because of the range of organisations in a typical manufacturing value chain it may also be applied to other types of organisations.

The qualification packaging has been developed on an assumption that competency will be developed through a combination of on and off-the-job learning strategies.

Job roles/employment outcomes

The MSS50111 Diploma of Sustainability specifies the competencies required for employment in job roles related to assisting organisations to improve sustainability and to meet their obligations under sustainability related regulatory arrangements, government or similar incentives, or other initiatives that apply to their operations.

Employment outcomes related to this qualification may include specialist roles, such as a sustainability manager, or the qualification can provide specialist sustainability competencies to technical, supervisory or operational employees.

Application

This qualification provides sustainability skills that can be applied inside an organisation and its value chain. Examples include:

- manufacturing enterprises
- organisations in a value chain, such as:
  - suppliers
  - customers
  - distributors, warehouses, transport suppliers and other logistics support organisations
  - professional service suppliers to manufacturing, for example, legal, engineering, accounting and auditing suppliers
- sustainability consulting enterprises.

Pathways into the qualification

This qualification has no formal entry requirement due to the wide variety of sustainability applications in industry. However, most enterprises will expect technical skills relevant to their operations or equivalent vocational experience and for this reason the qualification is unlikely to be suitable for direct entry from school.

Pathways from the qualification

Further training pathways from this qualification include the MSS70111 Vocational Graduate Certificate in Sustainable Operations.

Additional qualification advice

This qualification provides the skills needed to measure current sustainability performance and to establish processes for improved sustainability performance within organisations. It complements but does not duplicate qualifications supplying technical skills related to engineering, chemical, environmental and other technical analyses that may be needed for improving sustainability. Where these skills are required appropriate qualifications from other Training Packages, such as the MEM05 Metal and Engineering, PMA08 Chemical, Hydrocarbons and Refining and MSA07 Manufacturing Training Packages, should be considered.

Licensing considerations

There are no specific licences that relate to this qualification.

Packaging Rules

To be awarded the MSS50111 Diploma of Sustainable Operations, competency must be achieved in **twenty (20)** units of competency.

- **six (6)** core units of competency
- **fourteen (14)** elective units of competency, as specified below.

Note: Units with prerequisites are marked with an asterisk. Refer to the unit for details.

Core units of competency

- Complete the following **six (6)** units of competency.

Unit code	Unit title	P
MSS015001A	Measure and report carbon footprint	
MSS015002A	Develop strategies for more sustainable use of resources	
MSS015007A	Develop a business case for sustainability improvements	
MSS015008A	Develop strategic sustainability plans	
MSS015009A	Implement sustainability plans	
MSACMT671A	Develop and manage sustainable environmental practices	

Elective units of competency

- Complete **fourteen (14)** units of competency, made up of:
  - a minimum of **seven (7)** units from Group A
  - a minimum of **three (3)** units from Group B
  - the balance of units, to a maximum of **four (4)** , may be selected from:
    - Group A or B units, not previously selected
    - Group C elective units, listed below.

Group A: Specialist sustainability elective units

Unit code	Unit title	P
MSS014001A	Improve sustainability through readily implementable change	
MSS015003A	Analyse product lifecycle for sustainability	
MSS015004A	Design sustainable product or process	
MSS015005A	Develop required sustainability reports	
MSS015006A	Report to Global Reporting Initiative guidelines	
MSS015010A	Conduct a sustainability water audit	
MSS015011A	Conduct a sustainability energy audit	

MSS015012A	Conduct an emissions audit	
MSS015013A	Conduct a sustainability related transport audit	
MSS015014A	Develop response to sustainability related regulation	
MSS015015A	Evaluate sustainability impact of a process	
MSS015016A	Implement and monitor reengineering for sustainability	
MSS015017A	Develop regulated sustainability reports	
MSS015018A	Inform and educate organisation and community representatives on sustainability issues	
MSACMT670A	Develop and manage sustainable energy practices	
PMASUP520B	Review procedures to minimise environmental impact of process	
PMASUP620B	Manage environmental management system	

Group B: Elective units

Unit code	Unit title	P
MSS025001A	Assist with assessing site environmental indicators	*
MSS025002A	Assess the environmental risk or impact of a project activity or process	*
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	
MSACMS600A	Develop a competitive manufacturing system	
MSACMS601A	Analyse and map a value chain	*
MSACMS602A	Manage a value chain	*
MSACMS603A	Develop manufacturing related business plans	
MSACMT452A	Apply statistics to processes in manufacturing	
MSACMT620A	Develop quick changeover procedures	
MSACMT621A	Develop a Just in Time (JIT) system	*
MSACMT631A	Undertake value analysis of product costs in terms of customer requirements	*

MSACMT632A	Analyse cost implications of maintenance strategy	
MSACMT640A	Manage 5S system in a manufacturing environment	
MSACMT641A	Implement a continuous improvement system	
MSACMT650A	Determine and improve process capability	*
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	
MSACMT675A	Facilitate the development of a new product	*
MSACMT681A	Develop a proactive maintenance strategy	
MSAENV672B	Develop workplace policy and procedures for sustainability	
MSAPMOHS510A	Manage risk	

Group C: Elective units

Unit code	Unit title	P
MSS024003A	Apply an understanding of environmental principles to a site	
MSACMC410A	Lead change in a manufacturing environment	
MSACMS400A	Implement a competitive manufacturing system	
MSACMT230A	Apply cost factors to work practices	
MSACMT260A	Use planning software systems in manufacturing	
MSACMT261A	Use SCADA systems in manufacturing	
MSACMT280A	Undertake root cause analysis	
MSACMT423A	Monitor a manufacturing levelled pull system	
MSACMT451A	Mistake proof a production process	
MSACMT453A	Use six sigma techniques	*
MSACMT460A	Facilitate the use of planning software systems in manufacturing	*
MSACMT481A	Undertake proactive maintenance analyses	
MSAPMSUP390A	Use structured problem solving tools	

A maximum of **four (4)** elective units may be selected from this Training Package, other endorsed Training Packages and accredited courses, where those units are available at

Diploma level. 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.

Employability Skills for MSS50111 Diploma of Sustainable Operations

The following table contains a summary of the employability skills 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 may vary depending on the packaging options.

Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	• Manage implementation sustainability improvement procedures and develop and distribute related information • Develop standardised documentation on behalf of an area or group of work teams • Share and discuss information with others about enterprise activities • Develop and communicate workplace procedures • Provide information and clarifications to team leaders and other employees on workplace procedures in relation to sustainability • Provide and interpret instructions, specifications, standard operating procedures and other work-related documents • Provide assistance or information to relevant personnel • Debrief on workplace changes with relevant stakeholders • Record production, emissions and other work-related information • Access and use workplace communication tools and equipment • Apply numeracy skills to work procedures • Provide information about team activities to managers, supervisors and customers
Teamwork	• Identify roles of work teams where teamwork is used as the form of work organisation • Supervise and lead others in a production environment • Share work-related information with peers, including team members, supervisors and management • Identify hazards to employees and visitors • Identify the value chain and advise other employees as to how they can contribute to the final quality of the product • Review changes to work practices and work relationships with team leaders and other employees • Provide assistance with planning work operations as required • Seek assistance with work operations from specialists and other employees as required • Participate in multidisciplinary teams as required
Problem solving	• Monitor production and maintenance activities • Analyse inconsistencies, non-compliances, faults or hazards • Identify factors within work area that are a constraint to work efficiency or reaching of production outcomes • Identify essential and non-essential practices • Implement methods of increasing features/benefits of products or processes

	• Monitor responsibilities of teams and make improvements to work organisation • Identify process steps which cause a problem and implement improvement processes • Monitor sustainability performance and implement improvement processes • Compare shift or area required performance with actual performance • Identify situations where compliance to specifications or safety standards is unlikely • Identify, recommend and implement improvements • Identify causes of identified faults and take appropriate action • Investigate causes of deviations from targets and standards in relation to sustainability • Undertake root cause analysis
Initiative and enterprise	• Manage procedures and systems for optimum outcomes • Analyse feedback on procedures and systems • Analyse problems, implications or suggestions for improvements • Adjust work activities according to changes in customer requirements • Identify methods of increasing contribution of work teams to sustainability • Identify and implement changes and improvements • Monitor processes and equipment to ensure cost efficiency • Implement and monitor work practices to reduce waste • Participate in multidisciplinary teams to develop new products or processes
Planning and organising	• Ensure work areas comply with sustainability obligations and requirements • Identify and manage processes, tools and materials • Implement improvements in accordance with procedures • Distinguish between essential and non-essential practices • Implement use of planning tools within work of teams • Determine and prioritise required actions • Collect, organise and analyse information from work activities • 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
Self management	• 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 in 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 team members • 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 skill 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 team leaders and team members
Technology	• Monitor technology to ensure sustainability 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 within own skill level and that of team members • Analyse data and other information from equipment reports • Use information technology appropriate for job • Manage maintenance procedures appropriate to job and processes according to skill levels of team members

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY

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.