



The College of Manufacturing Excellence

Competitive Manufacturing Qualifications

Certificate III in Competitive Manufacturing – MSA31108

Course Outline

The purpose of this qualification is to enable the holder to make valuable contributions to the ongoing improvement of a competitive manufacturing business. People with this qualification are expected to partake in a range of team-based activities to analyse their performance, identify problems & improvement opportunities & take part in improvement projects, while performing their normal day-to-day duties.

The list of competencies outlined below is recommended for production operators in small manufacturing businesses. Where the candidate has specific duties such as schedule attainment etc. there are additional alternative competencies that can be used to reflect the specific need of that job.

Recommended Units

Apply competitive manufacturing practices (MSACMS200A)**

People with this competency understand the requirements of their internal & external customers. They understand the value chain that they are a part of and are able to contribute to process enhancements to improve that value chain. They use measures to monitor their progress towards the improvement goals of their team.

Sustain process improvements (MSACMS201A)**

People with this competency can contribute to the improvement of the processes they are a part of. They understand the goals of the improvement process and are able to monitor the impact of change, and when necessary suggest further changes to enhance the process.

Manage the impact of change on own work (MSACMC210A)**

People with this competency are able to work in an environment of continuous improvement. They can adapt to change in a way that ensures ongoing high standards of safety, quality & productivity. They are able to identify training needs resulting from change. They can analyse a change for potential problems and help to identify the best way to implement the change.

Apply 5S procedures in a manufacturing environment (MSACMT240A)

People with this competency understand the need to bring about order in their workplace & can support the activities to develop & maintain a well-ordered workplace. This simple philosophy provides a structured way to organise the workplace for improved safety & efficiency.

It uses the 5 pillars of:

- Sort
- Set
- Shine
- Standardise
- Sustain

Significant productivity improvements can be achieved & maintained by implementing these simple principles.

Apply quality standards (MSACMT251A)

People with this competency understand the quality standards for the raw materials, components & products they work with. They are able to make measurements & observe quality attributes according to the procedural requirements of the area. When non-conforming materials are identified they can take the appropriate corrective action. They can maintain all relevant quality records in their area, including error logs and performance charts.

Use structured problem solving tools (MSAPMSUP390A)

People with this competency are able to identify problems in their work area and use a variety of problem analysis methods to determine the cause. They can help in the process of identifying the best solution to the problem & establish a process to implement the solution. They are able to communicate their recommendations when the decision-making authority is at a higher level.

Further Optional Units

Two further units are required to complete Certificate III. We suggest choosing from the following units, depending upon the specific need of the organisation/individual. The candidate may also select from the list of Certificate IV units.

Apply Quick Changeover procedures (MSACMT220A)

People with competency are able to plan, prepare and implement quick changeovers according to set procedures. They are also able to identify opportunities for improvement in the changeover process.

Apply Just in Time (JIT) procedures (MSACMT221A)

People with this competency are able to work in a Just-In-Time environment (sometimes called Kanban). They understand the philosophy of a "pull" system and follow the specified procedures that dictate flow of production. They are able to identify problems & help to develop improvements to the process.

This unit is essential for companies who wish to adopt some of the "Lean Manufacturing" principles.

Monitor process capability (MSACMT250A)

People with this competency understand the important parameters that indicate the capability of the processes that they work with. They are able to take measurements and chart the results in a way that enables them to observe the performance of the process. They can recognise variations from the norm & take specified corrective actions.

This unit is useful in a mass production environment such as a machine shop where routine measurements can detect tool wear or incorrect machine set-ups.

Undertake Root Cause Analysis (MSACMT(280A)

People with this competency can analyse a problems and work their way from symptoms through to the root cause. They can gather and analyse data, and ask the right questions to get to the bottom of a problem.

This unit is useful both for solving a newly surfaced problem (acute), or a long term cause of variability/quality concern (chronic).

Certificate IV in Competitive Manufacturing – MSA41108**Course Outline**

The purpose of this qualification is to enable the holder to lead functional/project teams in a competitive manufacturing business. People with this qualification are expected to lead a team to achieve business targets as well as drive team-based improvement projects.

Recommended Units**Implement a competitive manufacturing system (MSACMS400A)**

People with this competency are able to work through improvement processes that impact the key result areas of cost, quality, delivery, safety/environment, and morale. They understand and monitor the measures used to indicate the teams' performance in these key areas.

Ensure process improvements are sustained (MSACMS401A)**

People with this competency can implement systems & procedures to ensure that improvements are maintained in the long term. They can identify the training that is needed for team members to implement & maintain the improvements. They can establish measures & an ongoing review process to ensure that the gains are maintained.

Lead change in a manufacturing environment (MSACMC410A)

People with this competency are able to lead change in their work area. They are able to work with other key stakeholders to overcome resistance to change and ensure smooth integration through the value chain.

Lead a Competitive Manufacturing Team (MSACMC411A)

People with this competency are able to lead teams in a competitive manufacturing environment. They can identify and set up & maintain key performance indicators that impact the key result areas of cost, quality, delivery, safety/environment, and morale. They can plan and manage the various aspects of the improvement project.

Lead a Team Using a Balanced Scorecard Approach (MSACMS405A)

People with this competency can lead their team to drive improvement in a way that their goals are fully aligned with the Company Key Result Areas of cost, quality, delivery, safety/environment, and morale. They can plan and manage the various aspects of the improvement project.

Use structured problem solving tools (PMASUP390A)

People with this competency are able to identify problems in their work area and use a variety of problem analysis methods to determine the cause. They can help in the process of identifying the best solution to the problem & establish a process to implement the solution. They are able to communicate their recommendations when the decision-making authority is at a higher level.

Lead 5S in a manufacturing environment (MSACMT440A)

People with this competency can lead their team through all aspects of a 5S implementation. This requires decision-making capabilities to determine the appropriate layout for a work area, as well as the ability to develop procedures & monitor progress of the team & to provide positive feedback to maintain the gains made by the team.

Further Optional Units

Five further units are required to complete Certificate IV. We suggest choosing from the following units, depending upon the specific need of the organisation/individual.

Facilitate a Just in Time (JIT) system (MSACMT421A)

People with this competency are able to coordinate the work in a Just-In-Time environment (sometimes called Kanban). They understand the philosophy of a "pull" system and monitor the effectiveness of the processes that dictate flow of production using key performance indicators. They are able to identify problems & instigate improvements to the process.

This unit is essential for companies who wish to adopt some of the "Lean Manufacturing" principles.

Analyse manual handling processes (MSACMT432A)

People with this competency are able to analyse the manual handling requirements of a job and to determine safe & efficient ways to reduce the risk & effort associated with manual handling. They are able to develop procedures & to train operators in the correct way to manually handle loads in their job.

Mistake proof a production process (MSACMT451A)

People with this competency are able to use mistake-proofing concepts to eliminate the causes of error and variability from production processes. They can analyse the process & develop new methods & train operators in the new procedures.

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Analyse and map a value chain (MSACMS601A)

People with this competency are able to develop a current state “Value Stream Map”. They can also analyse the current state so that Non Value Added work can be minimised or eliminated. They are able to propose new “Value Stream Maps” that take their company towards the ideal Lean State.