



**Australian Government**

**Assessment Requirements for MSS405053  
Manage application of six sigma for process  
control and improvement**

**Release: 2**

# Assessment Requirements for MSS405053 Manage application of six sigma for process control and improvement

## Modification History

### Release 2. Updated pre-requisite code

Release 1. Supersedes and is equivalent to MSS405053A Manage application of six sigma for process control and improvement

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability to manage six sigma for process control and improvement in the workplace for one (1) or more processes to:

- review process data to identify improvement priorities and degree of intervention
- apply DMAIC to make and then standardise improvements
- collect and analyse data to confirm improvement
- determine and review improvements obtained.

## Knowledge Evidence

Must provide evidence that demonstrates sufficient knowledge to interact with relevant personnel and be able to manage the application of six sigma (or similar), including knowledge of:

- identification and definition of six sigma (or similar) projects
- sampling, data collection, and analysis
- determining quantifiable benefits
- DMAIC methodology and application
- charting, including Pareto charts, fishbone diagrams, PICK charts, run charts and scatter diagrams
- statistical principles and analysis, including confidence limits, analysis of variance, frequency distribution tables, histograms, arithmetic mean, median, mode, standard deviation, range, interquartile range, correlation and dependence
- acceptance criteria/confidence levels
- failure mode and effects analysis (FMEA)
- process mapping
- suppliers, inputs, process, outputs, customers (SIPOC) mapping
- types of data (e.g. discrete/continuous/attributes) and their use in six sigma.

## Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.

- The collection of performance evidence:
  - should occur over a range of situations which include typical disruptions to normal, smooth operation of the workplace
  - will typically include a third-party (e.g. supervisor, 360 degree) report focussing on consistent performance and problem recognition and solving. A third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
  - must include either a six sigma project(s) or evidence of day-to-day managing of the application of six sigma in own workplace.
- Assessment should occur in operational workplace situations.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with an organisation providing relevant environmental monitoring, management or technology services about performing the competency being assessed within the last twelve months.

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>