



Australian Government

MSS405056 Use three or six sigma processes to determine and improve process capability

Release: 1

MSS405056 Use three or six sigma processes to determine and improve process capability

Modification History

Release 1. Unit code changed. Unit title changed. Application changed. Performance criteria changed. Foundation Skills populated. Assessment requirements changed. Supersedes and is equivalent to MSS405054 Determine and improve process capability.

Application

This unit describes the skills and knowledge required to use Six Sigma or Three Sigma to improve process capability.

This unit applies to production managers, plant/process engineers, technical specialists or similar roles with responsibility to determine the actual (as distinct from design) capability of a process, identify assignable causes and to develop and implement plans to stabilise then improve process capability.

This unit applies to any process or organisation.

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

Pre-requisite Unit

MSS404056 Apply statistics to operational processes

Competency Field

Competitive systems and practices

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Obtain data for process capability study	1.1 Identify process requiring capability analysis, including procedures 1.2 Identify customer specifications 1.3 Obtain process capability data
2. Analyse data	2.1 Interpret data to identify assignable causes of variation in liaison with relevant personnel 2.2 Develop solutions to eliminate variation due to assignable causes in

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	liaison with relevant personnel 2.3 Analyse random variations to identify possible causes in liaison with relevant personnel 2.4 Confirm causes of random variation 2.5 Develop solutions to reduce random variations in liaison with relevant personnel
3. Improve process capability	3.1 Develop written plans to implement solutions 3.2 Liaise with relevant personnel to implement solutions 3.3 Gain necessary approvals to implement plans 3.4 Monitor implementation and make adjustments 3.5 Determine new or revised process capability 3.6 Implement revised process capability regime

Foundation Skills

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

- Writing skills to document implementation plans
- Oral communication skills to communicate with a range of stakeholders to develop and implement solutions
- Numeracy skills to analyse and interpret process data and determine assignable causes.

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

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS405054 Determine and improve process capability.

Links

Companion Volume Implementation Guides are available from VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

Assessment Requirements for MSS405056 Use three or six sigma processes to determine and improve process capability

Modification History

Release 1. Unit code changed. Unit title changed. Application changed. Performance criteria changed. Foundation Skills populated. Assessment requirements changed. Supersedes and is equivalent to MSS405054 Determine and improve process capability.

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:

- determine and improve the capability of at least one process using either Six Sigma or Three Sigma.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- statistical methods of processing and describing data
- data collection methods
- data processing techniques required to establish variability and normal distribution
- how to calculate three sigma or six sigma process capability
- random and non-random results and processes for recognition of assignable causes
- causes of different types of non-random results
- causes of random variation
- process to translate the data into variations in the process and determine methods of controlling them.

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:
 - access to process data
- modelling of industry operating conditions.

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

Links

Companion Volume Implementation Guides are available from VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>