

640 Principles of measurement System Analysis in a food environment

SQA Unit Code

H15F 04

Level 3

SCQF Level 6

SCQF Credit value 3

Unit Summary

This unit is about understanding the principles of measurement systems analysis (MSA) as part of your organisation's drive to achieve excellence in food and drink manufacture and/or supply operations. This is important to the productivity and success of manufacture, processing and supply of food and drink within the food supply chain. Understanding current operational practice is central to the implementation of change, improvement, new practice, targets and a performance driven culture.

You will need to understand the principles and processes of measurement system analysis and how they are used to identify potential improvements. You will need to know how to accurately present findings of analysis to relevant people within the organisation, including senior management. You will need to comply with your company policy for improvement, take responsibility for your actions, and refer any issues outside of the limit of your authority to others.

This unit is for you if your role requires you to analyse the performance of current operational practice in food and drink manufacture or supply. You may be a front line manager or supervisor and/or have responsibilities for all or part of the production/supply process.

In order to be assessed as competent you must demonstrate to your assessor that you can consistently perform to the requirements set out below. Your performance evidence must include at least one observation by your assessor.

You need to know and understand:

Evidence of knowledge and understanding should be collected during observation of performance in the workplace. Where it cannot be collected by observing performance, other assessment methods should be used.

1. How the health, safety and hygiene requirements of a work area can influence the process of analysis
2. The food processing activity that is being analysed
3. Why it is important to study measurement systems to achieve excellence strategy
4. How measurement systems are selected for analysis
5. Possible sources of measurement systems variation
6. The use of measurement systems analysis
7. How measurement systems analysis can be used in a Six Sigma improvement project
8. How a variable, attribute repeatability and reproducibility study is conducted
9. The terminology used in measurement system analysis
10. How measurement systems analysis studies are conducted

11. How gauge repeatability and reproducibility is calculated
12. How gauge precision and tolerance is calculated
13. Industry rules for repeatability and reproducibility results
Levels of authority linked to problem resolution

Evidence of performance may employ examples of the following assessment:

- observation
- written and oral questioning;
- evidence from company systems (e.g. Food Safety Management System)
- reviewing the outcomes of work
- checking any records of documents completed
- checking accounts of work that the candidate or others have written