

654 Principles of Six Sigma methodology in a food environment

SQA Unit Code

H16C 04

Level 3

SCQF Level 6

SCQF Credit value 3

Unit Summary

This unit is about understanding the principles of six sigma methodology for achieving excellence in food and drink manufacture and/or supply operations. This is important to the manufacture, processing and supply of food and drink within the food supply chain, where for example food safety is a critical factor. Six sigma may be used as the basis of the improvement programme to support achieving excellence.

You will need to know how six sigma methodology is applied in your organisation. You will need to understand parts per million opportunities, and calculation of defects per million. You will also need to know the five phases of six sigma and the critical to quality characteristic. You need to understand how to comply with your company policy for improvement, understand the level of your responsibility for your actions, and know how to refer any issues outside of the limit of your authority to others.

This unit is for you if you work in food and drink manufacture and/or supply operations and are involved in operations or management practice involving problem solving. This could be either as an autonomous and focused role or as part of another food manufacturing/processing or supply role which includes some problem solving responsibilities.

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 six sigma
2. The application of six sigma methodology in meeting the business objectives set out in your achieving excellence strategy
3. The Six Sigma infrastructure and philosophy
4. The benefits that will arise from a Six Sigma project
5. The 'parts per million opportunities' goal of Six Sigma
6. The calculation of defects per million opportunities (DPMO)
7. The five phases of Six Sigma that are applied to a project
8. Critical to quality characteristic (CTQC) and how they are defined
9. How non-value added activity can serve as a roadblock for achieving Zero Defect

10. What an 'opportunity for defect' is and how it is defined
11. The roles and responsibilities of the key players in the Six Sigma process
12. The relationship between key process input variables (KPIV) and key process output variables (KPOV) (using the equation $Y=f(x)$)
13. The extent of your own authority, and to whom you should report in the event of problems that you cannot resolve

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