

<b>655 Principles of Six Sigma metrics in a food environment</b>		
<b>SQA Unit Code</b>		<b>H16D 04</b>
<b>Level 3</b>	<b>SCQF Level 6</b>	<b>SCQF Credit value 3</b>

### 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 to use metrics to drive six sigma activity. You need to understand the utilisation of z tables, and how realistic objectives and targets are set for the metrics activity. 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 a six sigma activity
2. The main features and benefits of carrying out a Six Sigma metrics activity
3. The importance of using metrics to drive a Six Sigma project
4. The calculation of defects per million opportunities, defects per unit and rolled throughput yield
5. The utilisation of Z tables in the calculation of the sigma score
6. The time period necessary to calculate a meaningful baseline
7. The setting of realistic objectives and targets for the Six Sigma metrics activity
8. The gathering of the data required for inclusion in a metric chart
9. Six Sigma metric chart construction
10. The relationship between 'parts per million', 'defects per million opportunities', Yrt and the Sigma score

11. The difference between variable and attribute data
12. Why it is advantageous to transform attribute data into variable data
13. The transformation of attribute data into variable data
14. The significance of the 1.5S shift, and how it can be utilised to infer long-term metric values
15. 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