



Learnerships



Skills  
Programmes

# Measurement & Statistics within QC – Skills Programme

## NQF 4 Breakdown

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Name of Module	Unit Standards covered	NQF Level	Duration (Days)	Approval Number
Measurements and Statistics within Quality Control (18 Credits)	9015 - Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems (6) 9016 - Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts (4) 14586 - Monitor and control quality control practises (8)	4	10	MERSETA SP0225/07-17

### Unit Standard 9015 - Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems

This unit standard includes the requirement to:

- Critique the selection of samples in terms of size and representativeness.
- Identify features of distributions: symmetry and asymmetry, clusters and gaps, and possible outliers in data and consider their effects on the interpretation of the data. Critique the use of data from samples to estimate population statistics.
- Apply an understanding of random phenomena to critique and interpret real life and work related situations.
- Critique arguments based on probability in terms of an understanding of random behaviour and the law of large numbers (e.g. lottery `hot` numbers).
- Demonstrate understanding of and determine probabilities for independent, disjoint and complementary events. Judge or critique probability values.
- Further range statements are provided for specific outcomes and assessment criteria as needed.

On completion the Learner will be able to:

- Critique and use techniques for collecting, organising and representing data.
- Use theoretical and experimental probability to develop models.
- Critically interrogate and use probability and statistical models.
- Solve a variety of problems based on data, statistics and probability.

- Gather, organise, evaluate and critically interpret data and statistics to make sense of situations.
- Use mathematics to critically analyse, describe and represent situations and to solve problems related to the life or work situations of the adult with increasing responsibilities.

### **Unit Standard 9016 - Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts**

Measure, estimate, and calculate physical quantities in practical situations relevant to the adult with increasing responsibilities in life or the workplace. Explore analyse and critique, describe and represent, interpret and justify geometrical relationships and conjectures to solve problems in two and three dimensional geometrical situations.

On completion the Learner will be able to:

- Measure, estimate, and calculate physical quantities in practical situations relevant to the adult.
- Explore, analyse & critique, describe & represent, interpret and justify geometrical relationships.
- Gather, organise, evaluate and critique information about objects and processes.

### **Unit Standard 14586 - Monitor and control quality control practises**

This unit standard is intended for a person who works in a manufacturing or engineering environment who needs to monitor and control the quality of manufacturing/engineering practices during manufacturing/engineering processes and resolve non-conformances to quality in the final products.

On completion the Learner will be able to:

- Demonstrate understanding of quality assurance practices in a manufacturing/engineering environment
- Integrate quality assurance practices into a manufacturing/engineering production line.
- Monitor the quality during manufacturing/engineering processes
- Resolve non-conformance to quality in manufactured/engineered products

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